



Vidya Prasarak Mandal's
B. N. Bandothkar College of Science, Thane
NAAC Reaccredited 'A' Grade
Best College Award, University of Mumbai
Selected for FIST "O" Level Grant.

Accreditation- Third Cycle Self Study Report



Vision :
**Imparting Quality
Education in Science**

Mission :
**To mould students
into rational
thinkers, competent
workers and socially
aware citizens.**



Track Id: MHCOGN10460
Website: www.vpmthane.org/bnb



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Part I



Preface



Preface NAAC

Education in its general sense is a form of learning in which the knowledge, skills, values, beliefs and habits of a group of people are transferred from one generation to the next through storytelling, discussion, teaching, training, and research. After independence in 1947 it became very necessary to develop technical education in the county to face the challenge to move the country ahead. Till 1969, there was no higher education institute in Thane. Dr. V. N. Bedekar, founder member of Vidya Prasarak Mandal (VPM) established in 1932; was restless with the thought that a land without education is land without hope. He persuaded his belief and finally, VPM'S Science College was established in 1969 as composite college with Arts and Commerce. In 1976, B. N. Bandodkar College of Science (BNBCS) was en-rooted as a single faculty science college, under the umbrella of University of Mumbai.

The college was accredited first time in the year 2003 with B+ grade (81.25 %) and then re-accredited in 2010 with A Grade (CGPA 3.04). The present one is the third cycle of accreditation.

The college had six basic science subjects till the year 2000; but responding to local and global demands ,BNBCS went on introducing new courses and currently the college has 13 undergraduate, and 15 postgraduate programmes. From an undergraduate college it has progressed to a reputed post-graduation and research institute with five subjects up to Ph.D. level.

At present there are 76 faculty members of whom 38 are appointed under the aided stream and 38 under unaided stream. There are 83 support staff (52 aided and 31 un-aided) working in different departments and administrative office.

Along with the academic activities the learners participate and excel in many co-curricular and extracurricular activities which serve as a meeting place for creative minds to discuss their ideas and allow for testing of their ideas in the face of intense competition and rigorous evaluations leading to confident, self esteemed citizen of India.

With this background the college has won the Best College Award of University of Mumbai in the year 2009 – 10, received 'O' level grants of FIST in 2012 and, "IMC-RBNQ Commendation Certificate 2014". This was possible with the whole hearted efforts of the teaching and non-teaching staff, students, alumni, parents and the dynamic management.

This journey of reflecting on the footsteps left in the past 45 years has given us insights to think of the path ahead to realize the goals of molding students, global in attitude and competence, but local in action and ability. With the goal of *Rising Above and Beyond Excellence*. I am presenting with pleasure the development and achievements of our college in the last 5 years (post NAAC 2010).

Principal
Dr. (Mrs.) M. K. Pejaver
V.P.M's B.N. Bandodkar College of Science,
Thane



NAAC
Steering
Committee



NAAC REACCREDITATION - THIRD CYCLE

Steering committee

Chairperson

Dr. (Mrs.) M. K. Pejaver- Principal

Coordinator :

Mrs. M. J. Gholba- IQAC coordinator , Associate professor Dept Of Statistics

Members:

Dr. R. P. Athalye - Vice principal, Associate professor Dept Of Zoology

Dr. (Mrs.) N. N. Patil- Associate professor Dept Of Zoology

Mrs. S.M. Phatak - Associate professor Dept Of Statistics

Dr. (Mrs.) M. Saha - Associate professor Dept Of Botany.

Dr (Mrs.) Anita Goswami-Giri - Assistant professor Dept Of Chemistry.

Mr. A. A. Kale - Assistant professor Dept Of Information Technology.

Dr. (Mrs.) Kalpita Muley- Assistant professor Dept Of Microbiology.

Mrs. Kadambari H. Manjrekar - Librarian

Mr. Chetan Moyank – Clerk Admin Office

Mr. Vipul V. Chavan – Lab Assistant Department of Zoology / Information Technology.

Sub committees

I. Curricular Aspects

Dr.(Ms) K. D. Phal- Associate Professor Dept Of Statistics

Prof (Ms.) Jayashree Pawar Assistant Professor Dept Of Microbiology

II. Teaching - Learning and Evaluation

Mrs. S.M. Phatak- Associate Professor Dept Of Statistics

Mr. S. Venkataram Associate Professor Dept Of Physics

Mrs. U.B. Gokhe Associate professor Dept Of Physics

Ms. Akanksha Shinde Assistant Professor Dept Of Mathematics

Mrs. U. Patne Assistant Professor Dept Of Mathematics

Mrs. Shamal Kulkarni - Clerk Admin Office

Mrs. Ashwini Koli – Clerk Admin Office



III. Research, Consultancy & Extension

Dr. R. P. Athalye Vice principal, Associate Professor Dept Of Zoology

Dr.(Mrs.) Anita Goswami- Giri Assistant Professor Dept Of Chemistry

Dr. Moses Kolet Associate Professor Dept Of Botany

Dr. Kiran Paria Assistant Professor Dept Of Zoology

Dr. (Mrs.) Vinda Manjaramkar Associate Professor Dept Of Zoology

IV. Infrastructure & Learning Resources

Mr. A.A. Kale Assistant Professor Dept Of Information Technology

Mrs. Kadambari Kardekar, Librarian

Mrs. Mamta Parab - Clerk Admin Office

V. Student Support & Progression

Dr. (Mrs) M. Saha Associate Professor Dept Of Botany

Mrs. Aditi Deuskar

Mrs. Rutuja More Assistant Professor Dept Of Microbiology

Mrs. Priyanka Koli - Clerk Admin Office

Mr. R. L. Shinde- Clerk Admin Office

Ms. Prajakta Mayekar - Clerk Admin Office

VI. Governance, Leadership & Management

Dr.(Mrs.) M. K. Pejaver, Principal

Mrs. M. J. Gholba- IQAC coordinator

Mr. Chetan Moyank. Accountant –Admin office

VII. Innovative Practices

Dr.(Mrs.) P.N. Kurve Assistant Professor Dept Of Zoology

Mrs. Sheetal Pachpande Assistant Professor Dept Of EVS

Dr.(Mrs.) Kalpita Muley Assistant Professor Dept Of Microbiology

Departmental profiles

i. Botany :

Dr. M. S. Mulgaonkar HOD Dept Of Botany

Dr. V. M. Jamdade Assistant Professor Dept Of Botany



ii. Chemistry

Mr. D. Amabavadekar HOD Dept Of Chemistry

Dr. U.R. Pandit Associate Professor Dept Of Chemistry

iii. Mathematics

Mrs. M. Wankhede HOD Dept Of Mathematics

iv. Physics

Dr. M.N. Nyayate HOD Dept Of Physics

v. Statistics

Dr. A.P. Patil HOD Dept Of Statistics

vi. Zoology

Dr. (Ms) N.N. Patil Associate professor Dept Of Zoology

vii. Information Technology & Computer Science

Mr. A.A. Kale In Charge of Dept Of IT/ Comp. Sc.

viii. Biotechnology & Microbiology

Dr.(Mrs.) Kalpita Muley In Charge of Dept Of Biotechnology

Mrs. Jayashree Pawar In Charge of Dept Of Microbiology

ix. Biochemistry

Dr.(Mrs.) Anita Goswami- Giri Co-ordinator of Dept Of Bio -Chemistry

Ms. Monali Katkar Assistant Professor Dept Of Bio-Chemistry

x. Environmental Science/ Biodiversity and Conservation

Dr. (Mrs.) P. N. Kurve Co-ordinator of Dept Of EVS.

Mr. Ashutosh Joshi Assistant Professor Dept Of EVS

Mrs Gazala Sayed. Assistant Professor Dept Of EVS

xi. Foundation course/Human Science/Interdisciplinary course

Mr. S. K. Bhosale Assistant professor Dept Of Foundation Course.

Mrs. Aditi Deuskar Co-ordinator of Dept Of Human Science & Interdisciplinary Course



Executive Summary



Executive Summary

Vidya Prasarak Mandal (VPM) is a renowned and premier educational trust in Thane which was established in August 1935. It was the dream of the founder member Late Dr. V. N. Bedekar to craft an “Island of Knowledge” (*Jnandweepa*) in Thane and with this singular zeal, and unconditional support from his colleagues, a seedling grew into a tree. B. N. Bandodkar College of Science is one of the 14 institutions belonging to VPM.

VPM's composite college was established in 1969 on a 13.5 acres piece of land which was marshy, muddy area flooded by water of the nearby Thane creek and in 1976 science college was separated and was named as VPM's B. N. Bandodkar College of Science (BNBCS). Late Dr. V. N. Bedekar, founder member of VPM had great foresight for the young generation of developing Thane city and was aware of the need of education to turn these youth into good citizens of India. Following the path led by Dr. V. N. Bedekar, the present leadership of Dr. Vijay Bedekar, chairman of VPM and Principal Dr. (Ms.) M. K. Pejaver provide clear vision and mission to the institution.

BNBCS was established with the aim of providing educational hub equipped with all modern facilities to the students from Thane and neighboring areas to pursue higher education in Science. From the beginning BNBCS is striving for quality education. After first accreditation by NAAC, Internal Quality Assurance Cell (IQAC) was formed as per the guidelines of NAAC. The cell aims at monitoring, facilitating and assuring quality of education.

BNBCS has passed through two cycles of accreditation by NAAC, was accredited for the first time in the year 2003 with B++ grade and has received 'A' grade with CGPA of 3.04 in the second cycle. The College has gained rating as the Best College of University of Mumbai. BNBCS has received grant of One crore from DST under the scheme FIST and Government recognition by awarding the prize for “Jaagar Jaanevancha” for two successive years 2012 and 2013. BNBCS *won the IMC RBNQ Commendation Certificate in the Education Category for the year 2014*. Though majority of the students of this college are either first generation learners or coming from middle class families, they have been showing excellence in the academics and many have completed PG courses and have been placed well in India and abroad.

The College offers an array of U.G., P.G. and Ph.D. programmes ranging from the conventional B.Sc. (in Physics, Chemistry, Botany, Zoology, Mathematics and Statistics) to current applied disciplines like B.Sc. in Biotechnology, Microbiology, Biochemistry, Computer Science and Information Technology. Following the requirement of job market, recently, innovative subjects like B.Sc.-Human Science and interdisciplinary science are



introduced. At post graduate level college offers - M.Sc. by papers in Chemistry, Physics, Information Technology, Environmental science and Biodiversity conservation and management, M.Sc. by research and Ph. D in Chemistry, Physics, Botany, Zoology and Environmental science.

The College has taken initiatives to introduce several short-term, value-added courses. The College is a Study Centre of YCMOU, Nashik and IDOL, University of Mumbai for UG course in I.T. The academic courses in Science meet the local and Global demands and prepare the students to contribute to nation building and to meet global challenges.

BNBCS is known as one of the reputed college providing quality Higher Secondary Education, hence students interested in professional courses like Medical, Engineering take admission for F.Y.J.C in this college. At first year B. Sc. Level, some students join the college unwillingly on failing to get admission to professional courses. Hence helping them to overcome their frustration and channelizing their energy to academics and extracurricular activities to gain confidence and to develop personality, is a major challenge for the teachers.

Our main goal is to mould our students to become socially aware citizens, so we plan the activities to help our students to become self-reliant, bold, and capable to meet the future challenges. All our efforts are always student centric to improve their all round personality as they grow to be the future citizens of India.

Curriculums of certificate courses are framed with a view of developing an all round and wholesome personality with a wider national and global interest.

The students' progress is monitored through regular class tests. Regular feedback about teaching-learning process is obtained for taking quality enhancement initiatives. The higher percentage of result as compared to university passing percentage and students figuring in the merit list are indicative of effective teaching and learning process.

Every year we arrange at least one National and State level Seminar/Conference. Two Workshops are conducted prior to National conference, which prepares the students to grasp the subjects presented in the seminar. We encourage our students to present papers in these Seminars on small projects carried out by them under the guidance of teachers. This helps the students to develop a research mindset.

To Promote a closer relationship between the world of skilled work and the world of competent learning, Departmental Clubs of college invite several nationally and internationally renowned faculties from different Institutes to interact with the students.

We arrange various lectures and activities on different topics related to social awareness, gender equality, woman empowerment and moral values through Women Development



Cell (WDC), National Service Scheme (NSS), National Cadet Corps (NCC) and Department of Lifelong Learning and Extension (DLLE) to fulfill our mission.

Various extracurricular activities are regularly organized to create self awareness and social awareness among students. These programmes reduce intercultural barriers. Cultural activities link together different knowledge networks and reinforce the significance of innovation, interaction, information, communication and technology. Hence we encourage our students to participate in intercollegiate competitions. This resulted in winning many prizes by in intercollegiate competitions and securing Best college trophy.

The staff members regularly refresh and update their knowledge and skills by attending / organizing workshops, seminars, conferences, refresher courses, orientation courses short term courses etc. Various State and National level seminars are organized for exchange of research ideas. The college has taken initiatives to promote research culture. As a result several faculty members pursuing research leading to Ph.D. Degree, undertaking Major / Minor Research Projects and publishing research papers / books. College has introduced Research scholar programme to motivate the students in the research field. BNBCS encourages non-teaching staff to update their knowledge by perusing higher studies / by attending workshops, seminars, etc

A participative approach of operation in academic and administrative processes by taking cognizance of inputs from stakeholders along with institutional values of Visionary Leadership, Focus on Future, Agility and Social Responsibility, enables the college to fulfill its vision of imparting science education to build future generation.

Strengths:

- Proactive Management and Principal
- Transparent and democratic decision making process
- Experienced and dedicated teaching staff and support staff
- Cordial relationship among the members of the management, staff, students and parents.
- High success rates in examinations as compared to University results.
- Array of courses available.
- Representation of faculty members in Board of Studies and syllabus committee contributing to curriculum design.
- Motivation for research.
- Free access to on line Journals and databases.
- Student centric approach- open door policy.
- Student welfare and student support schemes
- Free yoga classes for staff and students



- Excellent infrastructure facilities
- A state of the art library.
- Convenient location of the college, near to Railway station and Bus stand.
- Analysis of Student feedback used for improvement in all processes
- Optimum utilization of resources
- Teaching aids for ICT enabled teaching
- Student-friendly services.
- Secured and eco-friendly campus.
- Wi-Fi campus and free internet service to all.
- Canteen and photocopying facility on campus.
- Active IQAC committee.

Weakness:

- Limited role permitted in syllabus framing
- Limitation of space
- Limitations on implementing of value added courses due to the poor economic background of students

Opportunities:

- To strengthen Alumni association
- To strengthen linkages with industries.
- Streamlining collaborations and consultancy
- To be recognized as “College with Potential for Excellence”
- To streamline activities of placement cell.
- To have more activities through WDC.

Challenges:

- Students from vernacular medium.
- Catering to diverse needs of students within a class space constraint
- Keeping pace with the rapid changes in higher education.
- Generation of resources for up gradation of infrastructure.
- Motivating students to participate in various extracurricular activities.

BNBCS nurtures aspirations and facilitates unlimited learning to realize individual potential and growth. BNBCS will continue to achieve and maintain environment of excellence and growth with optimal utilization of resources. Our credo will always be excellence through innovation, compassion, ethical values and teamwork.



Profile of the College



B. Profile of the Affiliated /Constituent College

1. Name and address of the college:

Name	: VPM's B.N. BANDODKAR COLLEGE OF SCIENCE				
Address	: Jnandweepa, Near CIDCO Bus Stop, Chendani Bunder Road				
City:	Thane	Pin:	400601	State:	Maharashtra
Website:	www.vpmthane.org/bnb				

Profile

2. For communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. (Mrs.) M. K. Pejaver	022 - 25401188	09004690471	022 - 25337672	prinbnb@vpmthane.org mkpejaver@vpmthane.org
Vice Principal	Dr. R. P. Athalye	022 - 25336507	09920034053		rpathayle@vpmthane.org
Steering Committee Co-ordinator	Mrs. M. J. Gholba	022 - 25337672	09869427607		jqacbnb@vpmthane.org mjgholba@vpmthane.org

3. Status of the of Institution :

Affiliated College

√

Constituent College

Any other (specify)

**4. Type of Institution:**

a. By Gender

i. For Men

ii. For Women

iii. Co-education

√

b. By shift

i. Regular

ii. Day

iii. Evening

√

5. Is it a recognized minority institution?

Yes

No

√

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

6. Source of funding:

Government

Grant-in-aid

Self-financing

Any other

√
√

7. a. Date of establishment of the college: June 1969.

b. University to which the college is affiliated /or which governs the college (If it is a constituent college): **University of Mumbai**

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd – mm -yyyy)	Remarks (If any)
i. 2 (f)	01-07-1986	-
ii. 12 (B)	01-06-1985	-

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, CTE, MCI, DCI, PCI, RCI etc.): **N.A.**

**8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?**Yes No

If yes, has the College applied for availing the autonomous status?

Yes No **9. Is the college recognized?**

a. By UGC as a College with Potential for Excellence (CPE)?

Yes No

If yes, date of recognition:

b. For its performance by any other governmental agency?

Yes No

If yes, Name of the agency : (DST – FIST ‘O’ Level Grant)

Date of recognition : November 15, 2012.

10. Location of the campus and area in sq.mts:

Location *	Urban
Campus area in sq. mts	54,632.61 sq.mts
Built up area in sq. mts	5920 Sq mts

(*Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex with infrastructural facilities
- Sports facilities
 - * Play ground
 - * Swimming pool
 - * Gymnasium

- Hostel:
 - * Boys' hostel : No.
 - * Girls' hostel : No.
 - * Working women's hostel : No.
- Residential facilities for teaching and non-teaching staff (give numbers available -- cadre wise)
- Cafeteria --
- Health centre – (Bedekar Hospital)
 First aid, Inpatient, Outpatient, Emergency care facility, Ambulance.
 Health centre staff –
 - Qualified doctor Full time Part-time
 - Qualified Nurse Full time Part-time
- Facilities like banking, post office, book shops: [All facilities are near the College.](#)
- Transport facilities to cater to the needs of students and staff:
[College is located near to Bus stand and Railway Station.](#)
- Animal house: No.
- Biological waste disposal:
- Generator or other facility for management/regulation of electricity and voltage:
- Solid waste management facility:
- Waste water management: No
- Water harvesting:

12. Details of programmes offered by the college:

(Give data for current academic year 2014-15 at Entry level)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned /approved Student strength	No. of students admitted
1	Under-Graduate	B.Sc.	3 years	HSC	English	840	638

2	Post-Graduate	M.Sc.	2 years	B.Sc.	English	90	67
3	Integrated Programmes P.G.	--	--	--	--	--	--
4	M. Phil.	--	--	--	--	--	--
5	Ph. D.	Botany, Chemistry, Physics, Zoology E.V.Sc	--	M.Sc. & PET/NET	English	70	37
6	Certificate courses	--	8-15 days	H. Sc.	English	These are the course conducted at college level, so we admitted all those who apply.	--
7	UG Diploma	--	1 yr	H. Sc.	English		29
8	PG Diploma	--	1 yr	B.Sc.	English		57

13. Does the college offer self-financed Programmes?

Yes No

If yes, how many?

** Following unaided courses are conducted as Self-financed Courses- B.Sc.IT, B.Sc.-CS, B.Sc.-Biotechnology, Microbiology, Biochemistry, Human science, Interdisciplinary M.Sc. Information Technology Physics, EVS, Biodiversity and Wildlife Conservation & Management*

14. New programmes introduced in the college during the last five years if any?

Yes No Number

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)



Particulars	UG	PG	Research (M.Sc. by research + Ph.D.)
Science	Botany	Botany	Botany
UG - 13	Biotechnology	Biodiversity & Wildlife Conservation and Management	Chemistry (Organic)
PG - 5	Biochemistry	Chemistry	Chemistry (Physical)
Research – 05 + 05	Chemistry	Environmental Science.	Environmental Sciences
	Computer Science	Information Technology	Physics
	Information Technology	Physics	Zoology
	Mathematics		
	Microbiology		
	Physics		
	Statistics		
	Zoology		
	Human Science		
	Interdisciplinary		
Any Other not covered above	PG Diploma		

16. Number of Programmes offered under (Programme means a degree course like BA, B.Sc., MA, M.Com)

- a. Annual system
- b. Semester system
- c. Trimester system

17. Number of Programmes with

- a. Choice Based Credit System
- b. Inter/Multidisciplinary Approach
- c. Any other (specify and provide details)

18. Does the college offer UG and/or PG programmes in Teacher Education?

- Yes No



If yes,

- a. Year of Introduction of the programme(s)..... (dd/mm/yyyy)
and number of batches that completed the programme
- b. NCTE recognition details (if applicable)
Notification No.:
Date: (dd/mm/yyyy)
Validity:.....
- c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?
Yes No

19. Does the college offer UG or PG programme in Physical Education?

Yes No

If yes,

- a. Year of Introduction of the programme(s)..... (dd/mm/yyyy)
and number of batches that completed the programme
- b. NCTE recognition details (if applicable)
Notification No.:
Date: (dd/mm/yyyy)
Validity:.....
- c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?
Yes No

20. Number of teaching and non-teaching positions in the Institution as on February 01, 2015

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F				
Sanctioned by the UGC / University / State Government #	2		23		22		60		10	
<i>Recruited</i>	0	0	13	09	16		36	10	4	2
<i>Yet to recruit</i>	2		01		06		14		04	
Sanctioned by the Management/society or other authorized bodies <i>Recruited</i>					9	29	18	10	0	03
<i>Yet to recruit</i>										

*M- Male *F-Female, # Sanctioned post are M and F taken together.

21. Qualifications of the teaching staff: As on February 01, 2015.

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	--	--	--	--	--	--	
Ph.D.	--	--	5	6	4	3	18
M. Phil.	--	--	5	5	0	0	10
PG	--	--	13	9	7	10	39
Temporary Teachers							
Ph.D.	--	--			01	01	02
M. Phil.	--	--			--	--	
PG	--	--			7	29	36
Part-time teachers							
Ph.D.	--	--	--	--	--	--	--
M. Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--

22. Number of Visiting Faculty /Guest Faculty engaged with the College.

07

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2010-11		2011-12		2012-13		2013-14	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	66	82	75	75	80	89	73	102
ST	16	22	16	24	22	28	18	32
OBC	115	129	112	126	177	130	106	182
General	388	365	358	397	374	482	413	518
Others (NT/SBC/Ex-Ser)	51	66	39	58	37	65	48	68
Total	636	664	600	680	690	794	658	902

24. Details on students enrollment in the college during the current academic year: 2014-15

Type of students	UG	PG	M. Phil.	Ph.D	Total
Students from the same state where the college is located	1631	40	-	2	1673
Students from other states of India	22	09	-	1	32
NRI students	-	-	-	-	-
Foreign students	-	-	-	-	-
Total	1653	49	-	03	1705

25. Dropout rate in UG and PG (average of the last two batches)

UG PG

26. Unit Cost of Education for the year 2013 – 14.

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

For UG Aided Course:

(a) Including the salary component Aided

(b) Excluding the salary component

For UG Un-Aided Course:

(a) Including the salary component Aided

(b) Excluding the salary component

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

If yes,

a) Is it a registered centre for offering distance education programmes of another University?

Yes No



Name of the University which has granted such registration.

YCMOU

- b) Number of programmes offered: 3
- c) Programmes carry the recognition of the Distance Education Council.
Yes No

28. Provide Teacher-student ratio for each of the programme / course offered.

29. Is the college applying for

Accreditation: Cycle 1 Cycle 2 Cycle 3 Cycle 4 Re-Assessment:

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re-accreditation)

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Cycle 1: Accreditation Outcome / Result B++

Cycle 2: Accreditation Outcome / Result A Grade with (CGPA 3.04)

* Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.

Number of working days during the last academic year.

240

31. Number of teaching days during the last academic year

(Teaching days means days on which lectures were engaged excluding the examination days)

190

32. Date of establishment of Internal Quality Assurance Cell (IQAC)

IQAC 14/01/2004

33. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

- | | |
|---|----------------|
| i. AQAR 2010-11 was submitted by post to NAAC on | 18 / 08 / 2011 |
| ii. AQAR 2011-12 was submitted online to NAAC on | 22 / 09 / 2012 |
| iii. AQAR 2012-13 was submitted online to NAAC on | 24 / 09 / 2013 |
| iv. AQAR 2012-13 was submitted online to NAAC on | 24 / 09 / 2014 |

Any other relevant data (not covered above) the college would like to include.

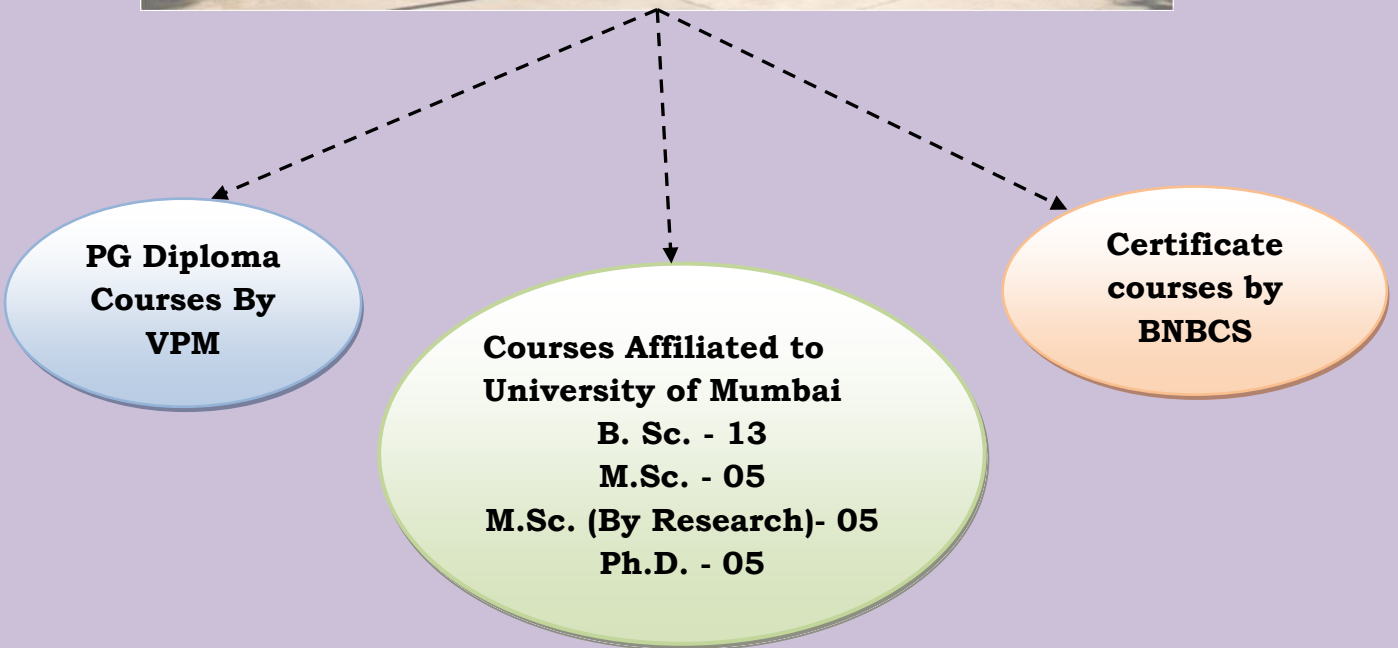
(Do not include explanatory/descriptive information)



Curriculum is the essential ingredient of any education system regardless of the education level.

Criterion – I

Curricular Aspects





CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation:

The dictum of BNBCS is education for one and all to develop all-round youth to serve the nation. We firmly believe that economic disparity can be removed through education alone. We know that education with values is enduring. The college tries to develop the students in such a way that every student while aspiring for academic goals should possess a craving for true wisdom and empathy for fellow human beings. We aim at enhancing their intelligence, emotional and spiritual quotient. We are committed to imparting quality education in basic and professional Science to generate empowered, socially responsible youth to face the changing needs of the society. The student profile maintained by us reflects the poor socio-economic background of the students, many of them being first generation learners. The management, teaching staff and supporting staff work in harmony to achieve our objectives of building a well-informed society by effectively amalgamating quality teaching, research, employability and entrepreneurship.

BNBCS is affiliated to University of Mumbai (UOM) and hence we follow the curricula framed by the University for different Courses. Many teachers of our college are members of syllabus committee wherein they contribute to design and develop a curriculum to mould the students into rational thinkers.

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

BNBCS believes in family culture. Keeping student at the centre, all activities are framed for overall development of our students. BNBCS aims at education with values. Character building of the students is the main agenda of management. Our leadership believes that “intelligence plus character- that is the goal of true education.”

All the activities of the college are planned and executed keeping in view, our mission and objectives. Our vision, mission and goal are:

Vision: Imparting Quality Education in Science.

Mission: To mould students into rational thinkers, competent workers and socially aware citizens.

Goal :

- ❖ Providing homely environment in the Institution.
- ❖ Developing students into socially responsible citizens.
- ❖ Promoting research culture.
- ❖ Developing a craving for quality and cooperation.
- ❖ Continuous personal and professional growth.
- ❖ Installing moral values to mould the students into excellent human beings.



- ❖ Nurturing aspirations and facilitating unremitting learning.
- ❖ Providing access to a comprehensive array of careers in Science.
- ❖ Attaining greater heights of glory and excellence in life.

The mission and vision is communicated through various ways to the stakeholders.

- ◆ An attractive display of both vision and mission catches one's attention as soon as one enters the college premises.
- ◆ These statements are displayed in the college at prominent places, like staff common room, Administrative office, Conference room, Auditorium, HODs' rooms, Gymkhana, Ladies room, Library and. all departments.
- ◆ Students are acquainted to these goals at the orientation lecture at the beginning of the academic year.
- ◆ The goals are well advertised through the prospectus and BNBCS's annual magazine "Sanyuja"
- ◆ Vision and Mission are printed on the cover page of journals provided by the college and on teacher's diary.
- ◆ They are highlighted on BNBCS's website too.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

The college curriculum is given by the affiliating University of Mumbai (UOM). Since many staff members are part of the Syllabus Committee, the required modifications are discussed prior to Board of Studies (BOS) meetings and as a result, as soon as the syllabus is passed through the academic council it is shared with the members of the department. The academic programs in the college are planned for effective implementation of curriculum and also in line with the goal and objective of the college.

- The process involves orientation of the teachers who would handle the curriculum and proper planning of the teaching programme.
- According to the plan made in advance, various departments either organize BOS workshops on revised syllabi or depute their faculty to participate in similar workshops organized elsewhere.
- The outcome of the workshops is shared with the teachers and the students.
- Academic calendar is made available at the beginning of the academic year and is rigorously followed.
- The institution directs all the departments and staff members to prepare a lesson plan for each subject and to follow accordingly and it is monitored by the Heads of the Department.
- Each faculty member prepares notes of lessons which are either distributed to the students or uploaded on Digital Repository, for academic preparation of students.



- Assignments are given to the students based on their syllabus which motivates the students to refer to various reference books, use internet facility, to acquire knowledge etc.
- Internal Assessment test, GD, quizzes and Seminars are conducted for each semester for the students which help the students to assess their level for the examinations.
- Need based bridge and remedial courses are planned by the respective departments.
- Some departments take efforts towards the development of workbooks and booklets as a teaching-learning aid for effective delivery of curriculum. E.g. Chemistry Dept. teachers published following hand books.
 - (1) T.Y.B.Sc. Laboratory handbook for drug and dyes. ISBN 978-81-920431-4
 - (2) M.Sc. II Practical handbook in organic Chemistry ISBN 978-81-920431-6-6.
- Feedback is collected from the students about the quality of teaching and necessary actions are taken to rectify it.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curricula and improving teaching practices?

University and institute always provide full support for effective and successful implementation of syllabus.

- ☞ University of Mumbai provides the entire course syllabus. The syllabi sanctioned in the Academic Council are displayed on UOM web site which enables easy access to everyone. Text books and reference books, question pattern/banks, list of practical experiments / titles / programs etc. are provided by syllabus committee, which enable the teachers to follow the curriculum for each semester.
- ☞ Whenever there is any change in the curriculum design, the university sends the details to its affiliated colleges and uploads that on UOM web site..
- ☞ Workshops, orientation programs for new courses are held by UOM. Majority of our faculty members are encouraged for their active participation there in.
- ☞ BNBCS is forerunner in hosting such workshops and programs on behalf of UOM.
- ☞ The institution allows additional working days to facilitate the staff to complete and revise the syllabus.
- ☞ The college encourages the faculty members to be a part of various statutory bodies of affiliating and other universities.
- ☞ Even the faculty members, who are not HODs, are the members of syllabus revision committees.
- ☞ Syllabus revision workshops are arranged in the college regularly with the



support of the University. Faculty members work as resource persons in such workshops.

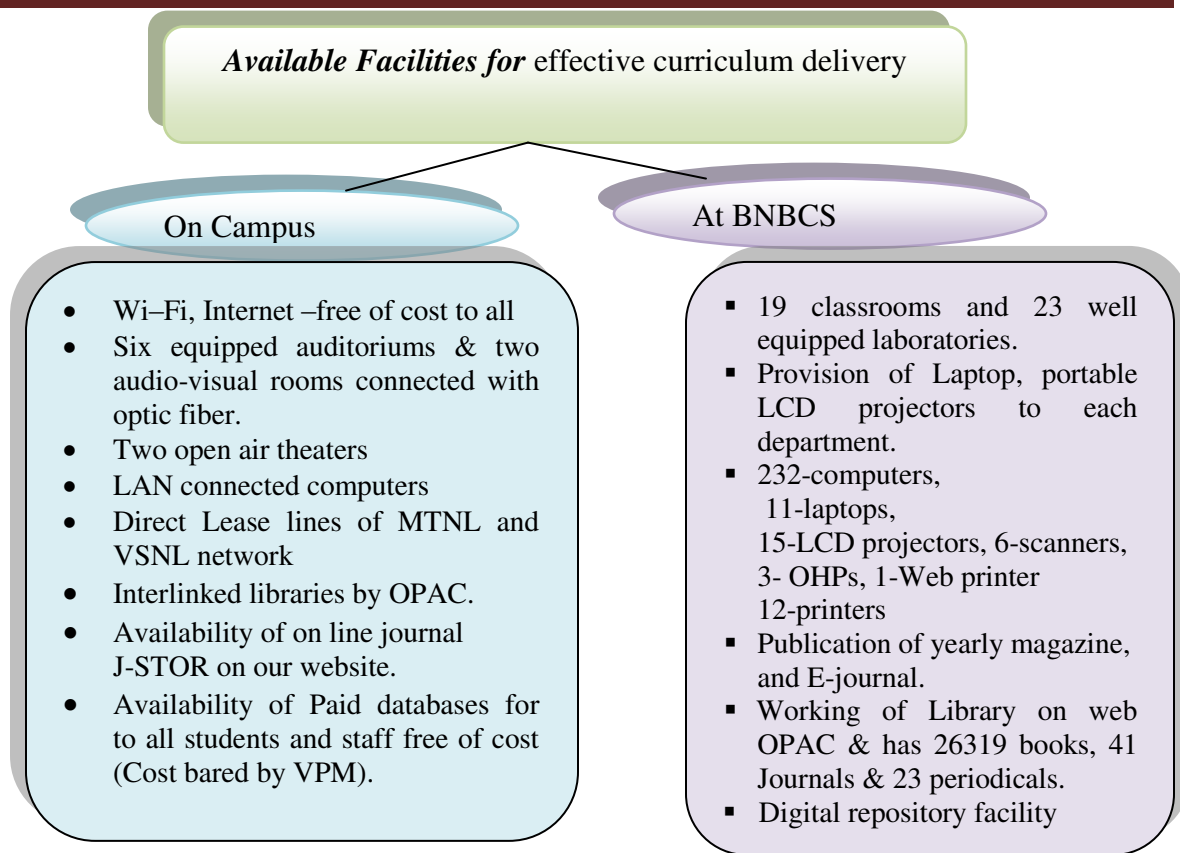
- ☞ In addition to the library resources the laboratories are added with new equipments and software during the vacation to start practicals from the first day of the academic year.
- ☞ The college has received the grant through FIST. This grant is being utilized to modernize Chemistry, Physics, Botany and Zoology Departments and laboratories.
- ☞ College receives UGC Development Grants for adding the equipments, books and computers in aided section.
- ☞ Campus networking along with internet access and availability of ICT provide the faculty an access to global resources.
- ☞ Faculties are also encouraged to attend Orientation, Refresher and summer/ Winter Courses for updating of knowledge.
- ☞ They are supported to attend short term programmes organized by Academic Staff Colleges and other similar institutes.
- ☞ Addition of books and journals to the library is done on a regular basis to ensure that the reference material is available.

Table 1.1.3(1) Assistance for updating knowledge to teachers by UOM and College.

ASSISTANCE BY UNIVERSITY	ASSISTANCE BY INSTITUTION
<ul style="list-style-type: none"> ▪ Free ICT training ▪ Orientation on syllabus reforms ▪ Orientation on examination reforms ▪ Workshops on content and analysis of new papers introduced ▪ Self Instructional Manual Workshop 	<ul style="list-style-type: none"> ▪ Duty leaves ▪ Registration fees and TA/DA for attending syllabus related workshops. ▪ Computer Laboratory ▪ Faculty Development Programmes ▪ Budget reserved for Research projects ▪ Fund for curriculum based programme ▪ Free internet, Wi-Fi, laptops.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other Statutory agency.

The management of BNBCS remains proactive in providing state of the art infrastructure, modern facilities, up-to-date laboratories and library with all recent publications. Our institution is always ready to give helping hand to teachers and students to make the implementation of curriculum as effective as possible so as to craft the students at par with global standards.



Curriculum is designed by UOM and the affiliating colleges have to strictly follow it.

- ✧ Our principal is the Dean of science faculty. Her leading role in developing curricula of more than 65 boards of studies encourages the faculty members.
- ✧ Our faculty members who are members of various Boards of studies are involved in curricular designing.
- ✧ A good number of special invitees in BOS do add their innovative ideas in such process of designing and updating.
- ✧ After taking into account the local people's needs, the institution requests the University to introduce some value added courses to meet the national and global requirements.
- ✧ Courses like Biochemistry, Bioinformatics, Biotechnology and Microbiology, Computer science, IT etc are added by the University in regular pure science courses and BNBCS started all these new courses at graduate level in recent years.
- ✧ Following the Syllabus, study materials are updated from time to time and the students are updated with latest knowledge in their field of study and trained accordingly.
- ✧ Latest books and journals on the concerned subjects are procured and placed in the General Library for students' use.



- ✧ Physics Dept. organized *Skill development/ value added Bridge course* for S.Y.B.Sc. and F.Y.B.Sc. students from 01/10/2013 to 25/10/2013. Ten needy students took advantage of this course to clear their basics of Physics.
- ✧ Bio tech Dept. conducts Bridge course in Mathematics for their students with the help of Mathematics Dept. to fulfill the requirement of syllabus.
- ✧ BNBCS is regularly appearing for Academic Audit which helps teachers to identify their strong and weak areas which is useful for betterment of teaching-learning process.
- ✧ The faculty interacts closely with academic peers who are invited as guest lecturers and with alumni who have joined industries, to get inputs on curriculum revision and new topics to be included or restructured.
- ✧ Students' (from our institution and other institutions) feedback about the course content is taken during the visits as examiners or members of the local inquiry committee.
- ✧ Feedback by students on Teaching-learning and Curriculum helps to judge the effectiveness of the teaching in relation to curriculum.
- ✧ The college has ever been experimental in finding and applying modern, innovative and student-friendly methods of teaching, learning and evaluation.
- ✧ Preparation of workbooks, handbooks, slide shows, PPTs , Question Banks and other teaching –learning materials is also a common practice.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operating the curriculum?

When theory is augmented with practice, it gives perfect blend of knowledge useful for prosperity of person.

- IQAC of college has a member representing the industry.
- Our alumni help in providing feedback and expectations of the industry with respect to curriculum and employability.
- Eminent guests who have specialized in emerging areas are invited to deliver lectures on emerging areas and these are attended by both students and staff members.
- Physics Dept. organized 'Physics Carnival 2014' from 21st Jan 2014 to 27th Jan 2014 in which various competitions and lectures were arranged to expose the students to world of applied Physics.
- The institution motivates the departments to take the students to industrial visits and excursions which relates their subject with real world. This helps the students to gain practical knowledge in their field of study.
- Teachers, students are encouraged to attend the various programs for quality enhancing tools conducted by UOM and other national organizations.
- M.Sc students do the projects in collaboration with Industry/NGO.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

There are 4 faculty members representing the various Board of Studies of the UOM. However about fourteen faculty worked as special invitees of the BOS for the curriculum design and development. Our faculty members who are all in the BOS take part in the planning of curriculum design. They give their suggestions to improve the quality of syllabus by including the current trends in the syllabus. Members of AC, RRC do contribute in development of curricula through their active representation in various bodies.

Table 1.1.6(1) : No. of faculties on various University committee.

UNIVERSITY COMMITTEES	NO. OF FACULTY
Members of Senate	1
Members of BOS	4
Members of syllabus committee	14
Academic Council	1
BOE	1
RRC	1

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university)by it? If ‘yes’, give details on the process (‘Needs Assessment’, design, development and planning) and the courses for which the curriculum has been developed.

BNBCS’s teachers contribute to develop new courses and curriculum for other Universities also.

- ❖ Staff members have developed curriculum for other Universities viz. SNDT University, K. J. Somaiya College, St Xavier’s College in the subjects of Statistics, Physics, I.T. at T.Y. B.Sc.
- ❖ Teachers are also involved in the development of curriculum for applications Of Statistics offered as a Post Graduate Diploma program through Advanced Study Centre.
- ❖ Staff members are involved in content preparation and designing of the experiments (task) for students preparing for International Olympiad in the subjects of Biology and Physics.
- ❖ Some of the staff members are also in the BOS of Autonomous colleges affiliated to University of Mumbai for e.g. K. J. Somaiya College, St Xavier’s College and SNDT University.

Table 1.1.7(1) Teachers on other Institute's bodies

Sr. No.	Name Of Teacher/ Department	Worked as	University/College
1)	Dr. Mrs. M. K. Pejaver Zoology	Member of management council	K. J. Somaiya College
2)	Dr. Mrs. M. S. Mulgaonkar Botany	BOS member	SNDT University
3)	Dr. M. N. Nyayate Physics	Syllabus committee	K. J. Somaiya College
4)	Mrs. M. J. Gholba Statistics	Syllabus committee	SNDT University
5)	Mrs. S. M. Phatak Statistics	BOS member	St Xavier's College
6)	Mr. S. Venkatraman Physics	Syllabus committee	K. J. Somaiya College

1.1.8 How does institution analyse/ensure that the stated objectives of curriculum are achieved in the course of implementation?

Review and analysis of implementation of the curriculum and accomplishment of the objectives is an integral part of agenda of meetings of various forums and committees. Weekly tests, unit tests, tutorials and assignments are used as tools of Continuous and Comprehensive Evaluation (CCE). Feedback from students is also taken for this purpose. Achievement of the objectives of the curriculum is measured in terms of performance of the students in final examinations at UG and PG levels, their upward mobility, employment and finally the feedback from their employers.

1.2 Academic Flexibility:

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.

BNBCS has introduced various add-on and skill based programmes to lead the students on the path of success and prosperity details are given in table 1.2.1(1)

Courses run on campus.

- ⊕ Our Management (VPM) has started Foreign Language centre in the campus to conduct Certificate Courses in Japanese, French and German.
- ⊕ VPM-IT centre conducts various certificate courses like web designing, MS-CIT. Since these are part-time courses, our students can join these courses while doing graduation.
- ⊕ To seek better job opportunities post graduation diploma courses like Drug Regulatory affairs, Hospital Administration, Analytical Chemistry, and Applications of Statistics are started through Advanced Study Centre which is under BNBCS.

Table 1.2.1(1) Courses Of BNBCS for UG students.

Goal	Programmes
Skill development	Certificate course in <ol style="list-style-type: none"> 1. Matsyahar- Value added fish delights. 2. Shakahar: home scale production of fruit jams, squashes and syrups. 3. Confectionary and snacks. 4. Art of mehendi. 5. Indoor gardening. 6. Self grooming. 7. Yoga For Health.
Progression to higher studies	Certificate course in <ol style="list-style-type: none"> 1.Bioinformatics 2.Robotics 3.Basics of R programming 4.Solid waste management
Improved potential for employability	a)Certificate course in <ol style="list-style-type: none"> 1) Decode Life 2) Solid waste management b)Short Term certificate courses <ol style="list-style-type: none"> 1)Personality Development and Leadership Training (Basic Module 1) 2)Indoor Gardening: (Basic Module 1) Professional Terrarium 3)Flora Appreciation On Jnanadweepa-V.P.M.'s Thane College Campus c) Research Scholars Academy Programme d) DLLE projects

1.2.2 Does the institution offer programmes that facilitate twinning /dual degree? If 'yes', give details.

Yes. The college offers post Graduate Diploma course in Drug Regulatory affairs, Hospital Administration, Analytical Chemistry, Applied Statistics, Horticulture and Gardening , all conducted by Advanced Study Center. Students can pursue any of these courses along with their three year degree course. But the certificates are awarded only after completing their Graduation.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability.

Following the rules and regulations of UOM, there is a fair amount of academic flexibility provided to the learners.



Flexi Syllabus in some of the programs like Applied Component in Zoology is allowed. Range of Core /Elective options offered by the University and those opted by the college:-

- ✓ F.Y.B.Sc. students can offer any one from the range of **Twelve** subject combinations given in the table.
- ✓ T.Y.B.Sc. students can offer any one subject from bouquet of Eleven subjects Chemistry/Physics/Botany/ Zoology /Microbiology / Biotechnology/ Computer Science/ Mathematics/ Statistics/Bio-Chemistry/ IT.
- ✓ Unaided courses like B.Sc. in Computer Science, Information Technology, Biotechnology, provide other educational options to the student community.
- ✓ **Post Graduate Programme** : Students are provided an opportunity to pursue M.Sc. in **Eleven** subjects and Ph.D. in **Five** subjects.

Table 1.2.3(1)Academic Courses offered by BNBCS
UG courses

F. Y. B. Sc.	Physics, Chemistry Mathematics, Foundation Course
	Physics, Mathematics, Statistics, Foundation Course
	Chemistry, Botany , Zoology Foundation Course
	Physics, Mathematics, Comp. Science* Foundation Course
	Chemistry, Zoology, Biotechnology* Foundation Course
	Chemistry, Zoology, Microbiology* Foundation Course
	Chemistry, Zoology, Biochemistry* Foundation Course
	Biochemistry, Chemistry, Microbiology*, Foundation Course
	Human Science from 2014-15
	Interdisciplinary course, from 2014-15
	NCC instead of Foundation Course from 2014-15
	Information Technology*
	S. Y. B. Sc.
Physics, Mathematics, Foundation Course	
Mathematics, Statistics, Foundation Course	
Botany, Zoology Foundation Course	
Chemistry, Botany, Foundation Course	
Chemistry, Zoology, Foundation Course	
Chemistry, Bio-technology * Foundation Course	
Chemistry, Microbiology * Foundation Course	
Mathematics, Comp. Science* Foundation Course	
Bio chemistry, Foundation Course	
Information Technology*	



	Interdisciplinary course from 2015-16
	NCC instead of Foundation Course from 2015-16
	Human Science from 2015-16
T.Y. B.Sc.	Physics & Electronic Instrumentation
	Mathematics & Computer Programming and Systems Analysis
	Chemistry & Drugs and Dyes
	Botany & Horticulture
	Zoology & Fishery Biology
	Statistics, & Operations Research
	Biotechnology *
	Computer science
	Microbiology*
	Biochemistry*
	Information Technology*

Table 1.2.3(2) PG courses:

M .Sc. (By papers)	M.Sc.(By research)	Ph. D.
Organic Chemistry Information Technology* Physics* Environmental Science* Biodiversity conservation and management*	Zoology Organic Chemistry, Physical Chemistry Botany. Physics* Environmental Science*	Zoology, Botany, Chemistry. Physics* Environmental Science*

*- Self financed courses.

Diploma and Certificate Courses:

The College offers various certificate and Diploma courses .Advance Study center run by BNBCS offers PG Diploma courses like Drug Regulatory affairs, Hospital Administration, Analytical Chemistry, Applied Statistics, Horticulture and Gardening.
Distance Education:

Yashvantrao Chavan Maharashtra Open University Courses. (YCMOU)

- i) Bachelor of Library Science (B.L.I Sc.)
- ii) Master of Library Science (M.L.I.Sc.)
- iii) Diploma in Journalism and Mass Communication
- iv) Our teachers in Zoology are also recognized guides for Ph.D. for YCMOU

**Institute of Distance & Open learning (IDOL) University of Mumbai.**

Our IT department is PCP (Personnel Contact Program) centre for F. Y. B. Sc., S.Y. B. Sc & M .Sc courses of (IDOL) University of Mumbai.

Research Guides

Four teachers from Botany, Three from Chemistry, One from Physics, Five from Zoology and Four for EVS are recognized as Research guides by University of Mumbai. Two teachers from Zoology department are recognized as guide for M.Sc. and Ph.D. degree from YCMOU and our two teachers from Zoology, one from Physics and one from Chemistry departments are recognized as guide for Ph.D. degree from J.J. Tibrewalla University, Rajashtan.

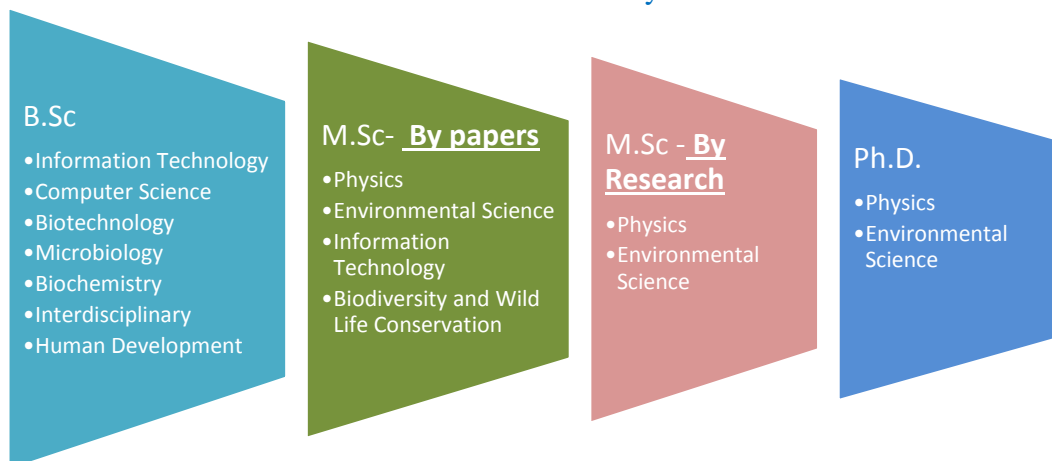
Enrichment Programmes:

Women Development Cell (WDC) creates social and legal awareness and develops vocational skills and life skills among girl students. They are also enlightened about the multiple career opportunities available for them.

Career and Counseling Cell of the College organizes courses on *Personality development* to impart presentation and communication skills and to develop confidence amongst students. Centre for Foreign languages run by VPM conducts Certificate courses in *French, German, Japanese and Chinese languages* to provide students an access to newer career – options and to expose them to global educational and employment opportunities. Department of Life Long Learning and Extension (DLLE) works towards empowering girl students and developing entrepreneurial skills among them. NCC (NCC Army Boys, NCC Army Girls and NCC Naval Wing) inculcates discipline and prepares students to take up careers in Defense services. NSS – National Service Scheme organizes community-oriented social activities.

1.2.4 Does the institution offer self-financed programmes? If ‘yes’, list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Yes. Below is the list of self finance courses run by BNBCS.





- ✂ Experts from industry are invited as resource persons to deliver guest lectures.
- ✂ Students are provided some extra facilities like book bank, use of computers in the labs.

✂ Students are guided for summer placement.

Though the aim of aided and unaided courses is to impart quality education, there are some technical differences in conduct of these courses.

- ✂ For unaided section, in addition to core faculty, visiting faculty is invited.
- ✂ With reference to admission, curriculum, fee structure, teacher qualification, salary etc. self financed courses differ in some aspect. Comparison is given in following table.

Table 1.2.4(1) Admission process and salary structure

	Aided	Un-aided
Admission	As per UOM guidelines	As per UOM guidelines
Curriculum	As set by BOS of UOM	As set by BOS of UOM
Fee structure	As per UGC guidelines	Given in table
Teacher qualification	As per UGC guidelines	As per UGC guidelines
Salary	As per UGC and State Government guidelines	Qualified staff is paid as per UGC norms and others by management's decision.

Table 1.2.4(2) Fee structure for aided and unaided courses

Fee Structure in Rs. for aided and unaided courses (2014-15).						
Programme	F.Y.		S.Y.		T.Y.	
(Aided)						
B.Sc.	Regular Payer	Concession Holder	Regular Payer	Concession Holder	Regular Payer	Concession Holder
	5,930	435	4,910	435	3,590	435
(Unaided)						
B.Sc..I.T.	22,825		21,805		23,255	
B.Sc.Bio-Tech	36,530		36,310		36,360	
B.Sc.Micro./ Comp. Sc. /Bio Chem./ Human Sc./Inter disciplinary	24,430		24,210		24, 260	



M.Sc. By Papers	(Aided)		(Unaided)			
	Chemistry		I.T.	Physics	EVS	Biodiversity and conservation
	Regular	Concession Holder				
	10,000	420	35,000	34,500	40,000	40,000
M.Sc By. Research (Chemistry, Botany, Zoology, Physics, Ev.Sc.)			30,533			
Ph.D. (Chemistry, Botany, Zoology, Physics, Ev.Sc.)			50,030			

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If ‘yes’ provide details of such programme and the beneficiaries.

Yes. To complement academics with skills, Curriculum of add on courses are framed with a view of developing all round and wholesome personality with a wider national and global interest. We have opted for DLLE program of UOM, in which various courses are conducted to train the students to start their own business. College conducts sessions on flower arrangement, Matsyahaar, Sauces, syrups and Jam and Jelly which motivate the students to learn simple and important things, useful for self employment. To foster a closer relationship between the world of skilled work and the world of competent learning, Departmental Clubs of college invite several nationally and internationally renowned faculties from different Institutes to interact with the students.

For detail programmes *Refer to 1.2.1*

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice? If ‘yes’, how does the institution take advantage of such provision for the benefit of students?

N.A.

1.3 Curriculum Enrichment:

1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?

Our Institution has taken proactive steps to enrich the curriculum by providing the students a wide range of co-curricular activities.

- * Every department has an association which conducts various programs organized by students only.
- * Departments also organize field trips, industrial visits, student projects, case studies etc.



- * All this enrich the knowledge of the students and also develops skills in them about organization, leadership, team building and decision making.
- * To supplement the University's Curriculum BNBCS offers many add -on and enrichment courses.
- * BNBCS voluntarily shoulders the responsibility of making students globally competitive, sensitizing them to their social responsibilities and developing a mindset for research.
- * To achieve these objectives BNBCS conducts workshops, seminars, talks, guest lectures, field visits, educational tours, inter collegiate literary and cultural competitions and informative exhibitions.
- * Various extracurricular activities are regularly organized to create global awareness among students.
- * These programmes reduce intercultural barriers.
- * Cultural activities take the students beyond the confine of syllabi and give them an exposure to issues of national development and also render the training of global competency.
- * Hence we encourage our students to participate in intercollegiate competitions.
- * This resulted in winning many prizes by our students and Best college trophy by BNBCS.
- * The additional courses offered by the college which are supplementary to the university curriculum mentioned in 1.2.1 also support the cause.
- * **Research Scholar's Programme:** from year 2014-15 we have started new activity for overall development of personality of students. This programme is of 18 months in which F.Y. and S.Y. students are given training for Science Research Project, life skills, Soft skills and Computer skills.

1.3.2 What are the efforts made by the institution to modify, enrich and organize the curriculum to explicitly reflect the experiences of the students and cater to needs of the dynamic employment market?

The college does not have freedom to modify the syllabus. But senior teachers of BNBCS contribute to modify, enrich and organize the curriculum.

- ◇ The teachers, who are members of BOS, are actively involved in the every stage of framing new syllabi.
- ◇ Experienced teachers who are special invitees in various boards also contribute to as experts in their subjects.
- ◇ Institution encourages maximum no. of teachers to participate in the discussions, workshops held for effective implementation of the academic program.
- ◇ Career Guidance & Placement Cell and Departments interact with industries to collect information about the latest trends in the employment market.
- ◇ Training and campus interviews by prominent agencies are conducted to give opportunities to the students. TCS, Wipro, L&T are some of the agencies who are



conducting campus interviews which help students to seek placement.

- ◇ Alumni Association “Anubandh” organizes lectures of our past students, who share their experiences about job market, its requirements and augmentation of skills and theoretical knowledge.
- ◇ We arrange “Career Melava” for Junior and Degree college students to help them select their career for a bright and successful livelihood.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

Though the curriculum is framed by university, BNBCS tries whole heartedly for effective delivery of curriculum. As it is rightly said that “*light the candle, rather than curse the darkness*”, to fill the gap between curriculums prescribed by University and current trend, short term, certificate courses are conducted.

- ⌘ WDC, NSS guide students, especially girls, to know their rights and conduct lectures and training programmes to make the students strong and self reliant.
- ⌘ Various lectures on different topics related to social awareness, gender equality, woman empowerment and moral values are arranged by National Cadet Corps (NCC), Department of Lifelong Learning and Extension (DLLE) to fulfill our mission of molding the students into rational thinkers and ideal citizens of India.
- ⌘ Lectures are conducted to eradicate gender bias from youth who are future of our country.
- ⌘ “**Jagar Janivancha**”: Our College is participating in Maharashtra Government’s campaign “Jagar Janivancha” This project aims at inculcating gender equality and women empowerment among the students. It also creates awareness among the students about the shameful incidents occurring in society. Under this programme we conduct lectures, workshops. Our efforts to make our premises gender friendly has been recognized by the Maharashtra Government and they have awarded us the first prize at the District level under the aegis of “Jagar Janeevancha.” (2012-13 and 2013-14)
- ⌘ Foundation course is an interdisciplinary course which integrates environmental Science, gender, climate change, human rights.
- ⌘ Efforts are taken to address the cross cutting issues through co-curricular activities.
- ⌘ Environmental Science and computer applications are elective options which a student can select in the final year.
- ⌘ The Women Development Cell of the college has been constituted as per the norms of the University of Mumbai. It conducts various workshops and programmes on gender related topics. Some of these workshops have been in association with NGO.
- ⌘ Climate Change and Environment Education: All departments are involved in promoting the concept of reduce, recycle and reuse.



- ⌘ We do BIO composting with garden waste and use Vermi- composting for Canteen waste .
- ⌘ EVS department conducted workshop on Solid waste Management.
- ⌘ The NSS unit and DLLE carry out activities like tree plantation drives, making of paper bags and distributing to local vendors, save electricity and street play to educate the community on saving the planet earth.
- ⌘ ICT: Teachers are trained in E-content generation. Courses on “R software”, “movie making”& “LATEX” are conducted for students and teachers.
- ⌘ Digital Repository, short films, documentaries, power point presentations, animations are some of the efforts made by us to use ICT in the effective implementation of the curriculum.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students? 1. Moral and ethical values 2. Employable and life skills 3. Better career options. 4. Community orientation.

Although the academic progress is crucial to the success of students, skills become relevant and tools of power when they are accompanied by a comprehensive value base in the individual. The main objective of education is to inculcate the right values together with knowledge among students so as to cultivate a spirit of co-operation, selflessness and mutual understanding, as they are the future Nation builders.

- * Our college is associated with Vivekananda Kendra, Thane branch. Volunteers from this centre conduct programs and examinations for our students to teach “Swami Vivekananda’s Thoughts”.
- * For last 3 years, in association with “Gandhi Vichar Manch”, BNBCS conducts examinations on Gandhian thoughts, after distributing books on Life of Mahatma Gandhi. Every year around 125 students appear for this examination and our students have won Gold and Silver medals and certificates.
- * BNBCS runs a Yog Centre, on behalf of Ambika Yog Kutir, a NGO, students are benefited by this facility which improves their mental and physical health.
- * The courses like Certificate course in Bioinformatics provide students employability.
- * NSS and NCC units conduct lectures, workshops to inculcate moral and ethical values and to emphasize on social responsibility. Students are provided guidance for anger, stress and time management through life skills lectures.
- * Every year NSS conducts 10 days workshop in rural areas, where students learn about living conditions of their counterparts. Some social task is performed during this workshop which teaches the students importance of togetherness, selflessness, team building and contribution in social cause.
- * “Jagar Janivancha” also tries to instill the feeling of sharing, caring and gender bias free society through the lectures and workshops .
- * DLLE project plays an important role in imparting employable and life skills. The major tasks taken up by DLLE are
 - i. SWS:- Status of woman in Society
 - ii. CP.: Career project



- iii. SM.: Student Manager
- iv. APY.: Annapoorna yojna.
- v. IOP. :Industry orientation programme.

Apart from this, short term courses like Mehendi, Hairstyling, instant food and chocolate making, imitation jewelry, instant healthy snacks are conducted which teach students employable and life skills.

- * Student who opted for career project of DLLE displayed information about different career opportunities, their entry points and prerequisites.
- * Career Melava was conducted for knowing better career options.
- * DLLE students presented skit for Social Awareness in “UDAAN” festival and they bagged the trophy.
- * Earthen pots painted by the students with Warli designs, full skaped papers were sold to teach them self earning and learning.
- * Our students help local bodies in smooth conduction of Ganpati visarjan and in making Thane City Clean and Green.
- * Tree plantation, rallies on social cause, helping differently abled and blind students in their studies are the projects taken up by BNBCS in association with NGO Sobati ,HOPE,Hariyali.
- * Various days are celebrated through friends of library- like Science day, Savitribai Phule day, environmental day, etc
- * Students are given training for Science Research Project, life skills, Soft skills and Computer skills through **Research Scholar's Programme**

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

BNBCS has informal feedback system through oral discussion. The suggestions are invited from students and alumni. These suggestions are taken in to account by BOS while framing the curricula..

The feedback obtained from our alumni who are from industry has helped us in suggesting to the Board of studies to incorporate topics which are relevant. For e.g. in IT and Computer Science new applications are being added very rapidly thus practical's are upgraded to take care of this dynamic change. Many departments conduct parents meeting in which the parents voice their opinion even though they may not be educated but they are aware of what to expect from the Institution.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The quality of the enrichment programmes is evaluated by the response and active participation of the students. A student satisfaction feedback is conducted in which the student responses are obtained and these are analyzed. Students also personally suggest and initiate new enrichment programs

1.4 Feedback System:

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

BNBCS is affiliated to the UOM and hence has to follow the curriculum designed and developed by the university. Fourteen of our faculty members are involved in curriculum reconstructing/revision/syllabus development. Many faculty members regularly attend the workshops related to syllabus, organized by the University.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

BNBCS has formal as well as informal system of feedback on curriculum.

- ✘ There is a formal mechanism to obtain the feedback from students about the curriculum. The feedback obtained from students was incorporated in new syllabus framed in the year 2011-12
- ✘ The informal ways from where we obtain the feedback of students periodically are Students' Council, meetings of various committees, farewells, suggestion boxes, counseling and mentor forms.
- ✘ Annual meeting of the Alumni Association "Anubandh" is conducted where we get valuable feedback of Alumni and retired staff members.
- ✘ We also get the feedback of alumni throughout the year by emails or their personal visits to the college.
- ✘ Feedback from parents is obtained during Parent Teacher meeting to discuss about students' academic performance, attendance, discipline and overall conduct and behavior. Such meetings for T. Y. B. Sc. students are arranged by each department throughout the year.
- ✘ Feedback from employers and industries is obtained through placement cell during placement sessions.

All these formal and informal feedbacks are put forth to BOS members and BNBCS uses this for introducing new certificate courses.

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?

In addition to introducing new programmes we also firmly believe in sustaining and consolidating existing programs. We take a need survey to see the potential job market and future trends. Thus during the last four years BNBCS successfully introduced the following new programmes.

Table 1.4.3(1) The programmes introduced in last four years.

Level	Subject
2011-12	
UG- B.Sc	Biochemistry
PG- M.Sc. By papers	Environmental Science
2012-13	
PG- M.Sc. By papers	Physics
PG- M.Sc. By Research	Physics
PG- M.Sc. By Research	Environmental Science
PG- Ph.D.	Physics
PG- Ph.D.	Environmental Science
2013-14	
PG Diploma*	Hospital administration
2014-15	
UG -B.Sc	Human Science
UG- B.Sc	Interdisciplinary
UG -B.Sc	NCC instead of F.C.at F.Y. and S.Y. level
PG- M.Sc. By papers	Biodiversity and conservation

*Certificates are awarded by VPM

The new programmes and courses are introduced for the students considering the industrial requirements and global competencies. They aim at the students' overall development. New courses are introduced to provide them access to a comprehensive array of careers in Science and to attain greater heights of glory and excellence in life.

Any other relevant information regarding curricular aspects which the college would like to include:

Table: 1 Improvement in number of courses in last five years.

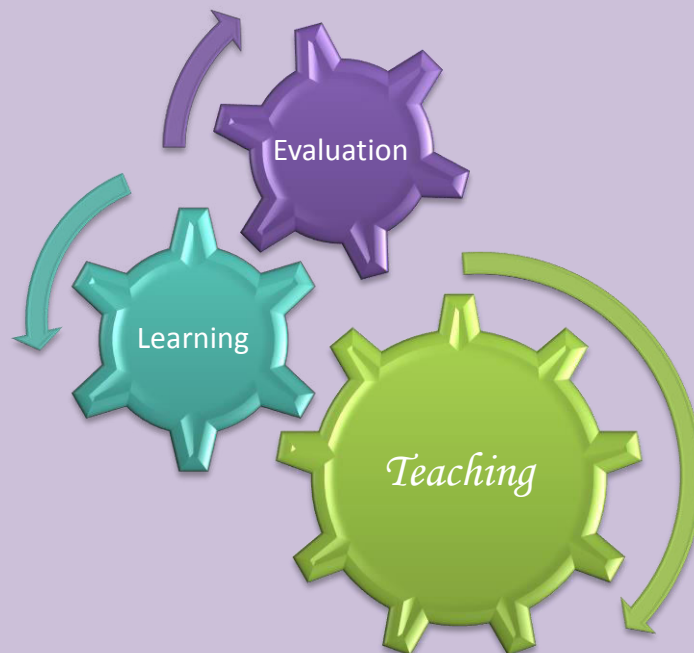
Sr. No	Courses \ Years	2009 – 10	2010 – 11	2011 – 12	2012 – 13	2013 – 14	2014-15
1	UG	10	10	11	11	11	13
2	PG	2	2	4	4	4	5
3	Research (M.Sc. + Ph.D)	4+4	4+4	4+4	6+6	6+6	6+6
4	PG Diploma courses	5	5	5	5	6	6
5	Diploma courses	-	-	-	-	1	1
6	Certificate courses	3	4	5	7	8	9
7	YCMOU	3	3	3	3	3	3



“It is the supreme art of the teacher to awaken joy in creative expression and knowledge”.

~ Albert Einstein

Criterion – II
Teaching, Learning & Evaluation





CRITERION II: TEACHING-LEARNING AND EVALUATION

BNBCS was established with the aim of providing ultra modern facilities to the students from Thane and neighboring areas to pursue higher education in Science.

BNBCS is known as one of the reputed college providing quality Higher Secondary Education, hence students interested in professional courses like Medical, Engineering take admission for F.Y.J.C in this college. At first year B. Sc. Level, some students join the college on failing to get admission to professional courses. Hence helping them to overcome their frustration and reverting their energy to academics and extracurricular activities to gain confidence and to develop personality, is a challenge for the teachers. Our teachers blend imagination, creativity and inspiration into the teaching learning process to ignite a passion for learning in students. In teaching learning and evaluation process, our college does deliberate, continuous and cognizant efforts, for students to become self-reliant, bold, capable to meet the future challenges and also for value and moral enhancement.

2.1 Student Enrolment and Profile:

2.1.1 How does the college ensure publicity and transparency in the admission process?
BNBCS is one of the preferred education institutions in Thane and nearby areas. We follow procedure given by UOM. For the last thirteen years we are following online admission procedure.

- 100% transparency is ensured in admission process.
- Teachers from all departments are involved in admission committee.
- On-line admission forms are available on college website.
- Merit lists with total marks are displayed on college notice board.
- Fee structure is given in detail in the college prospectus.
- Fee receipts are given immediately after payment of the fees.

The following factors aid transparency in the admission process:

- a) Prospectus: It clearly depicts subjects offered, fee structure, admission process, facilities provided and rules and regulation for discipline.
- b) Institutional Website: It gives the information about complete admission process.
- c) Advertisement in Regional / National Newspapers: Available courses are advertised in Newspapers.
- d) Flex boards indicating information about various courses are displayed near college entrance, one week prior to the commencement of admission process.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

UG Admissions.

- Admissions to F.Y.B.Sc., S.Y.B.Sc and T.Y.B.Sc classes are given as per the university guidelines.
- Reservation policy of government is strictly followed.
- For general courses, the in-house students are admitted with preference.
- For self-finance courses, students are selected on merit basis.
- Total marks in HSC and marks scored in the subject of Mathematics are considered for F.Y.B.Sc. I.T. admissions.

PG admissions.

- Admission to Post graduate courses are given according to prescribed norms of University.
- For chemistry, 70% students are admitted through Mumbai University from all colleges affiliated to the University and 30% seats are reserved for in house students, admissions for which are on merit basis.
- M.Sc. I.T. and Physics admissions are given on merit basis.
- M.Sc. EVS and Biodiversity & Conservation of Wild Life admissions are given on the basis of entrance test.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

Following table shows the highest and the lowest percentage of marks obtained by the students in their qualifying examination and admitted to different programmes in our college in the year 2014-15.

Table 2.1.3(1) Category wise Minimum & Maximum percentage at Entry Level.

UG- F.Y. B. Sc.					
Category		Open	SC	ST	OTHER
Subject combination	Aided				
CBZ	Max %	82.00	78.17	49.33	76.92
	Min %	44.77	48.76	45.54	44.31
PMS	Max %	79.00	69.85	48.00	80.92
	Min %	40.92	43.08	48.00	41.5
PCM	Max %	79.23	70.77	42.92	72.46
	Min %	43.00	44.00	42.92	40.33



Subject	Un- Aided				
IT	Max %	84.67	61.23	44.31	80.00
	Min %	48.46	43.69	44.31	45.83
COMP.SCI	Max %	68.38	70.46	62.77	72.00
	Min %	35.00	44.5	62.77	51.38
BIOTECH	Max %	72.77	67.23	-	74.00
	Min %	44.69	47.69	-	66.92
MICRO	Max %	85.00	60.78	52.92	68.4
	Min %	52.00	51.69	52.92	49.38
BIOCHEM	Max %	77.38	60.77	-	67.54
	Min %	68.31	59.38	-	65.38
HUMAN SCI.	Max %	73.05	-	-	53.60
	Min %	47.33	-	-	53.60
INTERDISIPLI NARY	Max %	51.54	51.05	-	-
	Min %	40.00	49.23	-	-
PG- M.Sc. Part-I					
Category		Open	SC/ST	OTHER	
Subject	Aided				
Chemistry	Max %	80.00	-	71.75	
	Min %	58.00	-	71.75	
	Un- Aided				
Physics	Max %	73.50	68.00	-	
	Min %	64.75	68.00	-	
Information Technology,	Max %	74.87	59.03	73.37	
	Min %	51.03	59.03	58.00	
EVS.	Max %	60.00	26.00	57.00	
	Min %	33.00	26.00	28.00	
Biodiversity and conservation of wild life	Max %	62.00	-	47.00	
	Min %	42.00	-	47.00	

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

The guidelines of the admission process are laid down by the University of Mumbai which provides information on the schedule of the admissions along with the display of merit list and payment of fees. UOM has introduced the mechanism of online application due to which the enrolment procedure has become easier.

The admission committee, Vice Principal and the Principal take a critical review of the admission process and the student profiles during and after the completion of the admission process. The major findings in last few years and the action taken thereupon are as below:

Table 2.1.4(1) Action taken after the review.

Findings of the review	Measure/ solution /action taken
Greater demand for self financed Programs.	Timely correspondence with the University for additional seats and having the final sanction, new self finance courses like biochemistry, environmental science, Human science are started
Students' unawareness of extensions of dates of admission of certain programmes by the University	Every date of extension of admission is notified on the notice board
Inconvenience caused due to the new rule of online registration before admission	E-Support services provided by I.T. department.
Confusion about the selection of subjects where options are available	More detailing in revised prospectus, extensive pre-admission counseling by senior faculty and choice to change the subjects/ combinations within two weeks after admission.
General tendency of choosing the Professional programs.	Preadmission counseling of students and parents through meetings. Principal's address in inaugural lectures and organizing Career Melava for Jr. college to explain the importance and scope in pure sciences

Our college compiles and analyses the student profiles which is obtained from the mentor filled by the students. This helps us in identifying students who need help in terms of academics and or monetary support.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion SC/ST, OBC, Women , Differently abled , Economically weaker sections, Minority community ,any other

While giving admissions to the students, all the Government and University rules for reservations are taken into account. According to Government norms percentage for various groups are as follows: ST-07, SC-13, VJ/NT-11, OBC-17, SBC-02, Differently-abled, Employees on transfer-05, and Sports personnel -02

- Among admitted students it is noticed that almost 50% of the students are girls.
- EBC free ship is given to eligible candidates as per rules. Those who are not eligible for EBC free ship but are unable to pay full fees are allowed to pay the fees in installments. Such students are also offered financial assistance from Students' Welfare Fund. Faculty members also help the students at personal level.
- Economically backward but deserving students are issued books under Book Bank scheme.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.

Table 2.1.6(1) Number of applications received and admitted

Year->	2011-12		2012-13		2013-14		2014-15	
Programme	No. Of applications received	No. Admitted	No. Of applications received	No. Admitted	No. Of applications received	No. Admitted	No. Of applications received	No. Admitted
UG								
Aided	965	267	981	319	1109	314	951	353
IT	1301	115	996	100	1215	110	1134	120
Comp. Sc	378	24	351	57	307	58	322	58
Microbiology	289	15	247	33	244	26	219	25
Biotechnology	423	50	381	56	362	62	350	58
Biochemistry	N.A	N.A	191	10	156	12	149	15
Interdisciplinary	N.A	N.A	N.A	N.A	N.A	N.A	04	04
Human Science	N.A	N.A	N.A	N.A	N.A	N.A	05	05
PG								
IT	65	20	55	20	72	20	59	19
Physics	06	06	09	09	19	19	47	20
EV Sc	01	01	25	20	73	20	32	16
Biodiversity		N.A		N.A		N.A	05	05

Table 2.1.6(2) Demand ratio:

Year	2011-12	2012-13	2013-14	2014-15
UG-Aided				
Aided	3.61	3.08	3.53	2.69
UG –Unaided				
IT	11.31	9.96	11.05	9.45
Comp.Sc	15.75	6.16	5.29	5.55
Microbiology	19.27	7.48	9.38	8.76
Biotechnology	8.46	6.80	5.84	6.03
Bio chemistry	N.A.	19.10	13.00	9.93
PG				
T	3.25	2.75	3.60	3.11
Physics	1.00	1.00	1.00	2.35
EV Sc	1.00	1.25	3.65	2.00
Biodiversity	N.A.	N.A.	N.A.	1.00

For M.Sc. Chemistry admissions are done by UOM.

2.2 Catering to Diverse Needs of Students:

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

We do not have any special provision for differently-abled students. Generally such students do not opt for science courses. But government policies are strictly adhered to. There is provision in University examination rules to allot extra time for handicapped students or to allow writer during examination, on producing proper certificate. Special seating arrangement is made for such students.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

- ❖ During Principal's inaugural lecture, admitted students are briefed on matters like the scope of the program chosen, its examination pattern, its marking pattern, etc.
- ❖ The subject combination that a student has offered at entry level is to some extent indicative of his/her inclination.
- ❖ At the commencement of teaching, teachers normally have intensive interaction with the students in the classroom that enable them to decide the academic competence of the class. Teacher modifies teaching method according to the understanding of students.



- ❖ Initially few lectures are engaged for teaching basics of the subjects.
- ❖ Practical sessions also help in personal interaction between students and teachers and clearing subject related queries if any.
- ❖ Teachers' judge slow and advanced learners through class tests and Seminars.
- ❖ Personal attention and guidance is given to slow and advanced learners inside as well as outside the class.
- ❖ Practicals, project work, excursions are also helpful in making the process of learning more interesting.

2.2.3 What are the strategies drawn and deployed by the institution to bridge the knowledge gap of the enrolled students to enable them to cope with the programme of their choice? (Bridge/Remedial/Add-on/Enrichment Courses, etc.

- Some departments conduct bridge courses for students of F.Y B.Sc. at the entry level and S.Y B.Sc. for preparing them to take on the main subject at T.Y B.Sc.
- There is a bridge course in Mathematics for students of B.Sc. Biotechnology program.
- Remedial courses are conducted for weak and failure students.
- Certificate courses and enrichment courses are also available in various departments. These courses are offered to empower students to get employment after graduation.
- Enrichment courses like- personality development courses and English speaking courses are conducted to improve students' personality.
- Students are encouraged to use library facilities to read reference books and use internet for other information.
- Industrial visits are organized to get first-hand knowledge of manufacturing or administration unit.
- Departmental clubs organize guest's lectures by corporate representatives to acquire knowledge about specialized areas.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

- The college being a co-education institution holds the tradition of imparting holistic education with emphasis on the ethical and moral values and regularly sensitizes its staff and students on issues such as gender, inclusion and environment through its various programs like 'Special Days celebrations', NSS programs and those organized by the WDC and IQAC.
- Special lectures, debates, street plays, poster competitions and exhibitions are arranged throughout the year. The WDC and IQAC arrange lectures on problems



like female foeticide, dowry and violence against women.

- The departments like Botany, Zoology, Biotech, NSS, NCC, Nature Club and Film Club take keen interest in planning and organization of programmes relating to environment. –plantation, solid waste management, rain water harvesting, energy conservation etc.
- The college tries to reduce paper usage through various measures.eg reductions in the pages of answer books, Modification of attendance sheets.
- The college has a tradition of felicitating guests with Saplings and earthen pots made by our own students of DLLE programme.
- “Jagar Janivancha” programme inculcates basic moral values among students.
- “Solid Waste Management” contributes to maintaining a green and clean campus.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

We encourage and promote advanced learners.

- Teachers provide many opportunities for independent study and also encourage them to give presentations/Seminars based on their reading.
- Additional reference books are recommended
- They are encouraged to participate in different intercollegiate quiz and other competitions.
- Special guidance is given to them for participation in various competitive examinations like M. T. T. S. (Mathematics Training and Talent Search), I.I.T. entrance Examination, Olympiad, CAT, M.Sc. entrance etc.
- Visits to industries and research institutes are arranged as career guidance.
- They are encouraged by giving endowment prizes.
- I.T. department helps students for certification courses like Java certification of Sun Microsystems.
- Additional books from a library, and special guidance lectures by faculty are provided to such students.
- Students are encouraged to take Mini Research Projects and are published in the form of booklet.
- This year BNBCS organized “AAVISHKAR” competition which gave exposure to students, about the research progress in other colleges of UOM.
- Our students have presented and published research papers in several ISBN journals.



2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc.)?

The socio economic background of the student community in our college makes them very fragile and these have to be handled carefully so as to prevent them from dropping out. Academic performance is collected through class tests, presentations by students, and grade marks. Potential Drop outs are identified and we try to prevent it by providing supportive measures.

For economically weaker sections

- The supportive initiatives are Book Bank facilities, part payment of fees, installment facility for payment of fees, encouragement to avail scholarships/ free ship provided by University, Government, reference and text books provided by teachers on their library cards, Counseling of individual cases by Principal.
- Students are encouraged to approach their respective teachers in case of any difficulties in the teaching- learning process. It has become an effective tool to strengthen healthy dialogue among stake holders. This has led to creating a more meaningful relationship between the teachers and the students over the years.

For slow learners

- Those students who do not qualify in the internal examination are personally counseled to find out why they have not been doing well academically.
- Students who remain absent are questioned for their absence and if the reasons are genuine like prolonged illness, deaths in the family, teachers explain them the lessons that they have missed.
- Special practical sessions are arranged for these students to enable them to do the practicals that they have missed.
- Revision sessions or extra lectures are conducted.
- Mentor teacher pays more attention to such students.
- The qualified counselor also helps the students when they approach her for personal counseling.
- Question bank and model/ synoptic answers are provided and periodic tests are conducted.
- Parents-Students-Teachers meetings are conducted for motivation and guidance.
- It is said by Yoga Guru B K S Iyengar that “Yoga teaches us to cure what need not be endured and endure what cannot be cured.” So students are advised to join Yoga training so as to become physically and mentally active.



2.3 Teaching - Learning Process:

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

Organizing the teaching learning activity requires scrupulous planning. Planning, scheduling and controlling the activities are major tasks to run the college smoothly.

- An Academic Calendar is prepared prior to the commencement of the academic year, so that it is available from the beginning of every academic year. It is a comprehensive plan of all the academic, co curricular and extracurricular activities. It spells out all academic events like i) College reopening after every vacation ii) Admissions iii) Examinations iv) Annual results v) Conferences, Workshops and Seminars details vi) Committee meetings vii) Holiday List viii) Duration of first / second term ix) Extracurricular events-like Club activities of all departments, Annual social days, Sports days and also number of teaching days and holidays. Academic calendar is made available on our Website.
- All academic and extracurricular activities are organized and accomplished as per the schedule with the support of teachers, non-teaching staff and students.
- In the beginning of academic year, HOD conducts departmental meeting for distribution of work and timetable. It is mandatory for teachers to submit timetable along with the teaching plan for the academic year and to follow it religiously. The teacher also plans the schedule for internal examinations.
- From the academic year 2011-12, new Credit Based Grading system is followed in which 40% are for internal assessment. For internal evaluation, class tests are conducted. For remaining 60%, examination schedule is prepared by examination committee and examinations are conducted formally following the rules set by UOM. From the year 2014-15, this is modify to 25:75.
- Examination timetable is displayed on student notice boards well in advance.
- Syllabus, paper pattern is communicated to the students well in advance.
- Synoptic answers together with the scheme of marking of question papers are prepared to ensure uniformity and objectivity in assessment.
- Papers assessed by examiners are moderated by senior faculty members / senior teachers from neighboring Colleges.
- Results are declared within 45 days after conduction of the examinations and are made available to the teachers for analysis and necessary action.
- **Teachers' Diary:** The diary is given to every faculty before the commencement of the academic year and contains many formats for filling in details like the individual time table, teaching plan and schedule of co curricular / extra-curricular activities. The diary maintained by the faculty ensures compliance of the academic plans. These diaries are periodically assessed by HODs and the Vice principal.



- The teaching plan prepared and followed by the members of the faculty is examined by the HOD to ensure that the entire syllabus is covered.

2.3.2 **How does IQAC contribute to improve the teaching –learning process?**

IQAC is now made the nodal agency to foresee all the programmes run by the college. At the beginning of the academic year the IQAC committee invites various departments within the college to chalk out their yearly calendar. At the end of the academic year it verifies whether all the programs declared by the departments have been adhered to. It also conducts internal academic audit and prepares for external academic audit by a neutral agency or UOM. A SWOT analysis is also conducted for all departments. (Strength, Weakness, Opportunities and Threat.-SWOT)

2.3.3 **How learning is made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?**

The College has made incessant attempt to bring innovations in teaching-learning methodology. It has shifted the focus from teacher-centric pedagogy to learner- centric pedagogy by introducing projects, field trips, group work, role play, industrial visits, case study, debates, seminars and presentations.

- The learning is made student centric by adopting variations in teaching methods suited to the learning abilities of the students. In the classes where the strength is more, the lectures are delivered with the aim that average student will be able to assimilate the concept. It is always seen that institutional strategies help in overall development of students by achieving better knowledge. We always plan our activities to mould our students so that they can face this competitive world boldly.
- Innovative methods like use of LCD, OHP, and CD are used by teachers to make the subject more interesting.
- Yearly Conferences / Seminars/Workshops are arranged for students.
- Long and short excursions form a part of our syllabus. Excursions develop the feeling of togetherness, obedience, discipline, and ability to adjust and share and in general broaden the vision of students. Excursions help to develop healthy and intimate relation between the students and teachers.
- Visits to Industries and research institutes help students to know much about upcoming trends in the subjects
- We arrange programme on Stress Management for the students through women cell.
- We provide “Mentor system” which guides and resolves students’ difficulties.
- Library remains open from 8.00 a.m. to 8 p.m. throughout the year. One month prior to examination it is also open on Sundays and public holidays.
- We publish yearly magazine-”Sanyuja” which is a good platform for the students to express their views, feelings and emotions.



- We encourage our students to take research projects in different subjects and compile these projects in the form of “Mini Research Project”.
- College has built up jogging track along ‘Jnanapath’, which is regularly used by students to increase the stamina and fitness.
- All teachers personally see to it that attendance of students is nearing to 100%. Periodically defaulter’s list is displayed and parents are informed about poor attendance of their wards.
- Various need-based career-oriented ‘add on’ courses are conducted which increase their competencies and employability.
- All departments organize guest lectures by eminent personalities to develop the students to learn on their own.
- Students are encouraged to take summer training or on the job training.
- Departmental clubs organize number of student centric activities. The participating students are from the same department or from other departments which promotes interdepartmental collaborative activities. Organization of these events promotes leadership qualities in the students. It also inculcates the spirit of team work among the students.
- Poster presentation, power point presentations, cartoons on relevant topics make the teaching process interesting and student centered.
- Free internet access in the library and departments promotes the habit of self-learning among the students.

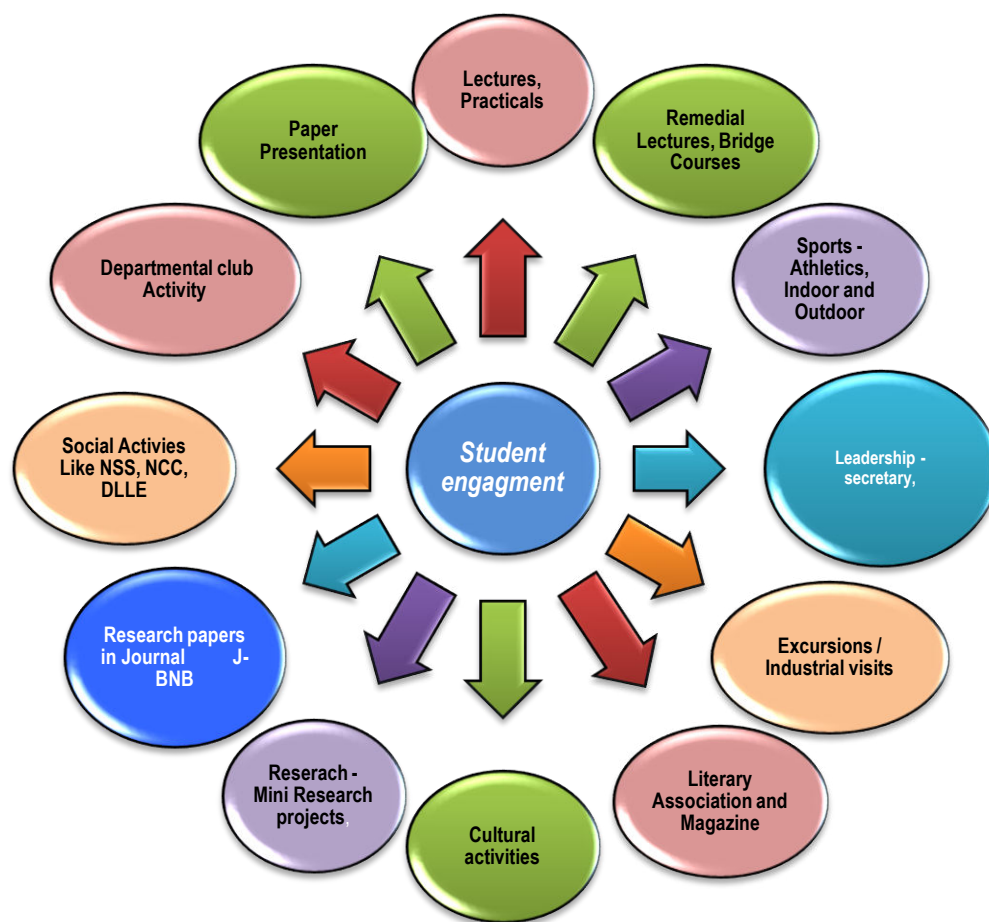
Thus learning is made student-centric through participatory learning. The humanistic approach towards education is exercised by helping the students to develop emotional intelligent, Self- concept, Communication and personal values. Interactive, collaborative and independent learning are recent techniques. These methodologies can be utilized effectively in learner-centered environments, especially in subject areas that involve teaching students real-life skills, and hands-on learning activities. The institution has taken measures to build up support structures to make them a common practice.

- ✓ The comprehensive increase in the advanced infrastructure has improved the process of making the teaching learning activity student centric. Regular updating of software is done to develop the skills of teaching of teachers.
- ✓ The teacher receives additional support from infrastructural facilities made available to them by the institution in the form of well equipped conference room, computers with free internet connection, updated library resources etc.
- ✓ Courses like “Movie making”, LATEX are conducted to help teachers develop soft skill for interactive learning.
- ✓ Training is given to teachers for subject enhancement with orientation, seminars and workshops.
- ✓ Knowledge sharing is a healthy practice among staff members. Staff members are

allowed to take Faculty Development Programme for up gradation of knowledge.

- ✓ E- Journal 'JBNB' is published by research committee of BNBCS.
- ✓ To assimilate collaborative and independent learning in class room, individuals or homogeneous / heterogeneous groups are encouraged to take seminars on general topics or syllabus based topics.
- ✓ "Mini Research Project" is organized for the successful incorporation of cooperative learning. This practice enhances positive Interdependence, individual and group accountability, face to face promotive interaction, required interpersonal and small group skills and group processing.
- ✓ We have initiated 'research scholar programme' from April 2014.

Fig : 2..2.3(1) Activities for students





2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators.

The College strongly believes that the objective of higher education is not only to create skilled human resource for employment, but also to mould the students to become good citizens with critical thinking and scientific temper. For developing a progressive society, lifelong teaching and innovative approach is indispensable. While planning teaching at classrooms, laboratories and outside, this aim is constantly kept in mind.

- ❖ Education at BNBCS goes beyond the standard teacher-centric text-book oriented classroom teaching. This develops a culture of divergent thinking in students leading to creative and critical thinking exhibited in project work, class presentations, participation in competitions and extra-curricular activities.
- ❖ Most of departments have post graduate courses and Ph.D.Programs. This ensures continuity and stability for the students.
- ❖ As far as possible our institution also accommodates students on ad hoc teaching, which motivates them to be researchers and life long learners.
- ❖ Research is encouraged among students through participation in 'AVISHKAR' national level research competition.
- ❖ This year we hosted "AVISHKAR" competition and three Projects are selected for next level.
- ❖ Students are groomed and encouraged to participate in inter-collegiate competitions.
- ❖ Various competitions like Photography, Poster- based on themes related to current issues, Power-point presentation are conducted to promote the students to learn new things outside classroom.
- ❖ Students are encourage to do the projects which are published in booklet " Mini Research Project".
- ❖ The College offers various short term as well as long term certificate courses which the students can pursue along with their undergraduate and post graduation studies.(Refer 1.2.1)
- ❖ Research Scholar Programme is started from year 2014
- ❖ Through WDC many women empowerment programmes are conducted.
- ❖ Co-ordinal relationship is developed between current and past students through lectures arranged by alumni association "Anubandh".
- ❖ Guest lectures are invited for talk on study topic and non curricular topic, for personality development.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

BNBCS has e-learning resources, E - journals, information and communication technology and open education resources in the form of notes, Question paper, Question banks, PPTs etc on college digital repository. We also take the students for educational tours and excursion. All these contribute to the overall development of the students.

- ✓ The Auditorium / Seminar room is air conditioned and equipped with audio visual aids like OHP, LCD, Computer, CD player, mike system, speakers.
- ✓ All departments are provided with computers with connectivity to enable students to prepare their projects, presentation, and data analysis.
- ✓ Free internet service is available in the library and all departments.
- ✓ The departmental libraries supplement the learning resources needed for effective learning by the learners.
- ✓ The website has links for many open educational resources like E learning.
- ✓ Mobiles are mainly used for announcing academic discussions and events.
- ✓ Social media like face book, WhatsApp is also used whenever an interesting article or event has to be shared.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

The numerous ways in which students and faculty are acquainted to advanced level of knowledge and skills are as follows:

- ◆ Student Internships provides an opportunity for students to learn by doing and also helps them to bridge the gap between campus and corporate.
- ◆ Training programs for teachers are provided in-house or faculty is deputed to other Institutions to acquire skills needed for emerging areas.
- ◆ Student Seminars encourage participatory learning.
- ◆ Need based workshops and seminars are organized by individual departments.
- ◆ Experts are invited to deliver guest lectures. This provides an opportunity for students and faculty to interact with experts.
- ◆ Blended learning helps in usage of modern technology wherever needed and retaining conventional methods where desired.
- ◆ Institution has provided computer with free Internet connections to all departments. Teachers use this facility for updating their knowledge.
- ◆ Teacher suggests certain topic to the students for Seminar where students are asked



to read and collect the relevant material and present it in the class room. Seminar is followed by discussion related to the topic. This helps in developing confidence amongst the students.

- ◆ Other than this, groups of 4 to 5 students do the project on social issues or the topics not covered in syllabus or topics with practical applications which are presented in “Mini research Project” booklet, that is compiled yearly.
- ◆ Students are motivated to read reference books from library for getting additional information.
- ◆ Different departments organize visit to industries and research institutes to get first-hand knowledge of manufacturing or administration unit.
- ◆ Excursions are arranged for the students from Botany ,Zoology and EVS departments, where students get field experience and freedom to interact with the teachers.
- ◆ Students’ participation in the outreach activities is intentionally encouraged since such participation imparts learning in the fundamental concepts through applications.
- ◆ We encourage students to use library facilities to read reference books and use internet for other information.
- ◆ PG Diploma and Certificate courses are offered to empower students to get employment after graduation.
- ◆ Visiting lectures by corporate representatives and alumni are organized to acquire knowledge about specialized areas.
- ◆ Training programs are organized to equip the students with necessary career related skills.
- ◆ Advanced learners are identified by the teachers in their day today interaction with students. The advanced learners are encouraged to give presentations.
- ◆ The advanced learners are motivated to read reference books by various internationally acclaimed authors.
- ◆ They are also encouraged to attend various quiz programmes and talks conducted by other Colleges.
- ◆ Students are also encouraged to make paper presentations in the various seminars and conferences organized in our college and other colleges.
- ◆ Regular seminars, workshops, guest lectures are conducted to expose faculty with advanced level of knowledge and skills to the current scenario.
- ◆ The faculty with advanced capabilities is encouraged to undertake minor and major research projects, funded by various academic bodies. They are also encouraged to organize seminars and conferences.



2.3.7 Detail (process and the number of students \benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?

BNBCS believes in holistic development of a student. In addition to the academic growth we groom them to be individual with ethics, self-esteem and also have apprehension for the society. The wide range of extension activities train students to develop leadership skills, feeling of togetherness, and social responsibilities. The extremely encouraging members of the teaching and supporting staff ensure that students are provided with guidance and support system to boost their personal, professional and academic growth. Yearly at least one National Conferences/Seminars/Workshops, 2-3 departmental activities, Informative lectures by experts from reputed institutes, long and short excursions, Visits to Industries and research institutes provide better knowledge about various innovative fields.

- ❑ Excursions develop the feeling of togetherness, obedience, discipline, and ability to adjust and share. During excursions, teachers make students understand the subject through real life.
- ❑ Visits to Industries and research institutes help students to know much about upcoming technologies in the subjects and also availability of career after graduation.
- ❑ Programmes on Stress Management are arranged through women development cell.
- ❑ Yoga classes for students are conducted to keep them mentally and physically fit. Every year 50-60 students attend Yoga classes.
- ❑ “Mentor system” gives academic and psychological support to students.
- ❑ Students learn to cope with social issues through NSS activities.
- ❑ Students are encouraged to join NCC which teach them to become good citizen and which inculcates feeling of national pride and unity.
- ❑ We publish yearly magazine, which is a good platform for the students to express their views, which also improves their writing skills.
- ❑ Students are encouraged to take research projects in different subjects and compile these projects in the form of “Mini Research Project”
- ❑ Students are made aware of “Earn and Learn” schemes through IT department, NSS, DLLE and employment cell.
- ❑ College has appointed full time counselor to assist the students in their psychological and social problems. She conducts regular meetings with the students. She delivers lectures on “life skill”. On an average 100-115 per year students are given advice about their problems.

With the moral support offered by staff, mentors and personal counselor, confidence is built up to open up to discuss their problems, and find solutions to overcome difficulties.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

In recent years it has become essential to utilize modern technology in teaching which has been found to be effective. The institution is trying its best to bring in the desired change in the teaching methods and techniques. Necessary infrastructure is provided to meet the challenges of the time. Some of the innovative teaching approaches which have been adopted and found to be effective:

- ⊕ We have various modern facilities in our college. This helps us to carry out our teaching programmes more effectively. The College has total of 232 computers, 22 thin clients, 12 Laptops, 15 LCD projectors, a slide projector, 6 scanners, 12 printers, 1-web printer and 3 OHPs. We use these facilities regularly.
- ⊕ Computers with free Internet facility are available in all departments, library and college office.
- ⊕ Campus of our institute is made Wi-Fi.
- ⊕ In some departments like Chemistry, Zoology and Botany, CDs related to subject topics are shown to the students.
- ⊕ T.Y.B.Sc (Statistics) students are given guidance for TORA package and “R software” to solve their statistical problems. F.Y. B. Sc students are taught MS-Excel for solving problems.
- ⊕ T.Y. B.Sc. Mathematics students use C programming, SQL using Oracles, JAVA and Networking package for practicals.
- ⊕ T.Y. B.Sc. Physics students learn C++ programming language.
- ⊕ T.Y.B.Sc Chemistry students use computers for the analysis of data during Practicals.
- ⊕ In the subject Zoology, Biotechnology topics like Biostatistics, Bioinformatics are to be learnt with the help of computers and students have to submit reports at the time of examination.
- ⊕ While studying the topic Zoogeography, students collect information about various sanctuaries and national parks from various websites available on Internet.
- ⊕ Zoology research students use MS-Excel (data analysis tool)/Statistical analysis package-Minitab for data analysis.
- ⊕ Our research students use E - journals like database J-STOR which is made available on our website.
- ⊕ With regular teaching method of chalk and talk, the use of ICT has encouraged students not only to pay attention and understand the subject better but also to grasp and remember it for a longer time.



- ✦ Apart from use of ICT, teachers use techniques of seminars, group discussion, individual presentation, assignments, revision through PPT and small projects to encourage interactive, collaborative and independent learning.

The varied method of teaching taps the intellectuality of the heterogeneous group of students and help to improve their cognitive abilities. The outcome of this is distinctly noticed in the overall performance of students. It has been observed that a student with multiple mark sheets at entry point, graduates in the first attempt or secures distinction or ranks at university level.

2.3.9 How are library resources used to augment the teaching-learning process?

Library is the brain of any Institution and the books and visitors in the Library make the Institute rich. Our library is situated on the Third floor with the area of 1153 Sq. Feet.

- ♣ We have a very special collection in Science with many rare and important titles.
- ♣ Our library is computerized.
- ♣ Our library subscribes 41 Scientific Journals and 25 magazines. Our total collection of books is 26319.
- ♣ On an average we issue about 75 to 80 books per day.
- ♣ Complete catalogue of the library holdings has been created by using Libsuite asp version.
- ♣ Web Online Public Access Catalogue (OPAC) is provided to the users.
- ♣ Students are using the OPAC for searching the required books and journals.
- ♣ Library database is accessible from anywhere in the world through web OPAC available on www.vpmthane.org.
- ♣ We are proud to provide online access facility to the students and faculty members to the internationally reputed commercial databases like JSTOR, ProQuest, CMIE, Manupatra, UGC N-LIST, Dictionary of Scientific Biographies, and open access databases viz Vidyanidhi, OpenJ-Gate, OpenDOAR, DOAJ, PubMed, SSRN, PloS, COCHRANE.
- ♣ **E-Resources:**
 - 1) **Paid Databases:** J-Stor, Proquest, CMIE, Manupatra, J-ArtStor
 - 2) **Open Access Databases :** Open J-Gate, DOAJ, DOAR, SSRN, ERIC, Pubmed
- ♣ The library is connected with the other four libraries on the campus and an integrated OPAC of the holding is made available to all users.
- ♣ Books on inter library loan are provided to the students and teachers on demand.
- ♣ **Digital Repository:** We have developed our own Institutional Repository using D-Space. It includes Question Papers, Question Banks, Research Papers, Syllabus, Study material for students, Research Projects, Conference Proceedings etc. <http://dspace.vpmthane.org:8080/jspui/index.jsp>.



- ♣ **Web OPAC Search:** We have online catalog for Library Collection. Users can click on the following link and can search the book of their interest; they will come to know the availability of book <http://10.1.1.7/webopac> this facility is appreciated by students and researchers.
- ♣ **Book Bank:** Our Library offers four different types of Book Bank facility
 - 1) Book Bank for Meritorious students
 - 2) Book Bank for Low Income Group.
 - 3) Book Bank for Reserve Category Students.
 - 4) Group Book Bank for Unaided Courses.
- ♣ The Central Library with its 25447 **books and 600 bound volumes of scientific and other journals** is the nucleus of Study and Resource in the college.
- ♣ We provide references to the students, staff and eminent persons in the city. Many past students are still taking advantage of our enriched collection.
- ♣ The carefully selected print and non-print resources accessible via OPAC and supported by exceptionally responsive services make the library a major resource for development of the faculty and the students.
- ♣ The Library welcomes suggestions from all members of the college community for the acquisition of materials which supports teaching and research programmes.
- ♣ Lists of new arrivals, new titles, useful articles and faculty publications are promptly communicated to the departments.
- ♣ The library also arranges book exhibitions on various occasions.
- ♣ 12 computers with internet and reprographic facility in the library help the faculty and students to acquire any required information.
- ♣ PG Students and staff open access to book shelves.
- ♣ Separate reading area is allotted to the faculty, research students, PG students, UG students and those studying for competitive exams.

The Grade Based Semester System and the student-centric teaching methods demand for increased use of the library and its internet. The library is a useful source for obtaining information related to academics and also on topics for various competitions.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

We have Credit Grading Base System (CGBS) in all undergraduate and post graduate courses. Under this scheme we run 60/40% (from the year 2014-15, 75-25%) scheme of examination. Due to which no. of class tests and internal tests have been introduced. As a result challenges in completing the curriculum within the planned time frame exist. There are sometimes public holidays and co-curricular activities which are during the days of lecturing. However, there is a system of teaching –learning monitoring which can handle these challenges.

- We prepare academic calendar within a planned time frame. The teachers ensure that the curriculum is completed well in time and students are given ample time for preparations before semester end exams.
- If needed teachers engage extra lectures on Sundays or public holidays with the consent of students, HOD and the Principal.
- Sometimes notes are given in advance, and topics are discussed in class room to facilitate individual learning.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

- Our institute-introduced evaluation of teacher by students from year 2004-05. From the year 2011-12 we have started taking feedback online.
- The students are asked to fill a specially drafted form with a questionnaire. Each question is based on four-point scale and students are asked to judge teachers by giving specific points. Teachers who score less than 60% marks in specific question /s are called personally by the Principal and suggestions are offered as remedial action.
- Students fill students' online opinion forms for non-teaching staff of the departments, office as well as library. Principal takes remedial actions after analysis.
- T.Y. students are asked to fill a specially drafted form with a questionnaire to calculate Students Satisfaction Index (SSI) .
- Teachers are asked to do self-analysis and submit the report with remedial measures to the Principal.
- The Teacher's Diary given to each faculty records the actual hour by-hour work. The diary also mirrors the methods used.
- Academic Audit is another significant means used by the institution for monitoring and evaluation of the process. Through IQAC academic audit is carried out and the report is submitted to the Principal and then Principal gives her opinion and suggestions on this report in HODs meetings.



- Along with Internal audit, external audit was done last year. This year UOM has introduced the academic audit of the colleges affiliated to UOM and scored CGPA 2.5 and above in NAAC accreditation process. BNBCS has submitted the report for the same.

2.4 Teacher Quality:

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.

Merit is the sole criteria for selection and as a result we have an excellent faculty, which is the strength of our institution. The work culture and academic ambience provided by the Institution has helped us in retaining talent.

- ❖ The selection of faculty is as per the guidelines of the UGC, State Government, and University of Mumbai. Recruitment procedure involves getting a no objection letter from the Joint Director, Mumbai region, getting the draft advertisement approved by the University of Mumbai, Advertising in three leading newspapers (English, Hindi and Marathi), calling the eligible candidates for interview, selection committee as per UGC norms consisting of nominees of the Vice chancellor, Government, Governing body, subject expert, HOD and Principal. Appointed teachers are approved by the University of Mumbai.
- ❖ Strategies adopted for retention of the teachers are:
 - ✓ After their appointment, the faculty is given moral and logistic support by the principal and respective department.
 - ✓ The culture within the college to treat all faculty members at par without age or other barriers makes the new faculty feel comfortable.
 - ✓ The new faculty is allotted topics / subjects of their choice to teach and tips for improvement are given by HODs and colleagues.
 - ✓ Teachers are motivated to improve their qualifications. They are encouraged to do research work.

- ✓ They are persuaded to apply for projects funded by various funding agencies.
- ✓ Teachers are encouraged to attend conferences, seminars, orientation and refresher courses.
- ✓ Teachers attend Syllabus revision workshops arranged by UOM, to keep them up to date with the curriculum.
- ✓ Teachers receive yearly exposure to National/International conferences organized by the college.
- ✓ Each department has been provided with laptop and LCD projector/OHP.
- ✓ They are given full freedom and are encouraged to adopt innovative teaching-learning strategies.
- ✓ New staff is involved in different committees so that with the assimilation of thoughts and experience of senior staff, emotional bonding builds up which helps in retention of staff.
- ✓ Our enriched and well qualified teachers are as follows:

Table 2.4.1(1) Teachers qualification:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	--	--	--	--	--	--	
Ph.D.	--	--	5	6	4	3	18
M.Phil.	--	--	5	2	0	0	10
PG	--	--	3	1	3	7	11
Temporary Teachers							
Ph.D.	--	--			01	01	02
M.Phil.	--	--			--	--	
PG	--	--			7	29	36

The new faculty thus feels secure and homely due to the academic ambience and fair treatment from the seniors. Varieties of activities on campus provide scope for their creativity and self-development and give them job satisfaction. It is also a matter of pride for them to be a part of the college which is the Best Colleges of UOM.

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

To cope with the scarcity of senior faculty to teach new programmes, we have well qualified and experienced unaided teachers. Mumbai is an educational and financial hub so getting faculty who are experts in emerging areas is not difficult. In addition to that,

1. Faculty members are encouraged to attend refresher courses.
2. Experts of these subjects are invited as visiting faculty.
3. Guest lectures by experts from Research institutes and industries are organized regularly.

Table 2.4.2(1) *The appointments for last 5 years.*

Sr. No.	Year	Teaching		Non Teaching	
		Aided	Unaided	Aided	Unaided
1	2010 – 2011	3	24	0	45
2	2011 – 2012	0	22	0	19
3	2012 – 2013	0	26	7	25
4	2013 – 2014	3	33	8	14
5	2014 – 2015	0	38	2	13

Unaided staff is recruited every year.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

The college management is extremely proactive and encourages teachers in their professional development in various ways.

- ✿ Teachers are given duty leave for attending seminars, conferences and workshops.
- ✿ The Institution encourages teachers to participate in training programmes,
- ✿ Orientation Courses and Refresher Courses, by providing them timely information on the schedules of these programs.
- ✿ Teachers are encouraged to improve the quality and allowed to take leave through FIP.
- ✿ Our Principal persuades teachers to take projects and consultancy.

a) Table 2.4.3(1)Nomination to staff development programmes (2010-2014)

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	20
HRD programmes (VPM BRIMS -Rising above and beyond the Excellence)	18
Orientation programmes	02
Short term courses	03
RBNQA - Examiners Course	02
RBNQA - Orientation course	12

b) Faculty Training programs organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning
Soft skill programmes like 'R' software, LATEX, SPSS are conducted for teachers. To handle new curriculum workshops are held at departmental level with Board of Studies in the respective subject. Our college provides audio visual aids and other teaching aids as per faculty requirement. Teachers are encouraged to develop content and share with their colleagues.

c) Table 2.4.3(2)Percentage of faculty participated in activities;

Sr. No.	Particular	Percentage of faculty
1	Invited as resource persons	40%
2	Participated in external Workshops / Seminars/ Conferences	100%
3	Presented papers	65%



2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

- The UGC scheme of study leave is made available to a teacher on submitting application.
- The UGC schemes of Travel grants to attend International Conferences are made available to the teachers. Following teachers received travel grant of UGC:
 1. Dr. (Ms) A.S. Goswami –Giri : Received UGC Travel Grant for presenting a research paper at international conference at Amsterdam Netherlands Oct 2011
 2. Dr. (Ms.) Poonam Kurve: Received UGC Travel Grant for presenting a research paper in “World Conference on Marine Biodiversity” organized by University of Aberdeen in collaboration with University of St. Andrews, Scotland, UK Sept 2011.
- Duty leave is granted for attending Conferences, Seminars, Workshops, refresher courses, Orientation courses, syllabus related Seminars or Workshops.
- Many of our teachers work as visiting faculty at other institutions.
- Teachers who are awarded Ph. D. degree are honored during annual academic prize distribution of college as a token of recognition of their achievement
- Insistence, academic guidance and administrative support is given for filling proposals for Minor and Major Research Projects (MRP) of the UGC, Mumbai University.
- IQAC plays important role in motivating teachers to apply for MRP to various funding agencies and also gives guidance to frame research proposal.
- The UGC scheme of FIP is made available to the teachers for their doctoral research.
- Consultancy services: List of teachers involved in consultancy :
 1. Dr. R. P. Athalye- Benthic studies, Environmental Impact Assessment studies, Polychaeta taxonomy, Insect taxonomy.
 2. Dr. (Ms.) Kalpita Mulye and Ms. Jayashree Pawar. Training for basic microbiological techniques and consultancy for lab set up for faculty and students of Babasaheb Ambedkar Technical University, Lonere.
 3. Dr. (Ms.) P. N. Kurve: Identification of marine fauna.

2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.



BNBCS provides excellent infrastructure, library, well-equipped laboratories and guidance and support to the faculty which helps them to excel in teaching and research resulting in various achievements as follows:

1) Dr.(Ms) Madhuri Pejaver :

- Elected as Dean of the Science faculty, University of Mumbai from 2010
- Selected as a member of committee to review the present methodology of Assessment and Accreditation by NAAC.
- Honored with “Janakavi P. Savalaram” Award by The Thane Municipal Corporation (TMC) at the 13th P. Savalaram Awards on December 23, 2012.
- “Pitambari Thane- Nagar Ratna Puraskar” given by Nagar Vikas Manch, Thane for her dedicated work in the field of education on 16th February 2014.

2) Mr. N. Mandge :

- "THANE GAURAV" Award for 2010 by Thane Municipal Corporation for his outstanding contributions to social and educational activities.

3) Dr. (Ms) A.S. Goswami –Giri :

- “Yashwantrao Chavan Samata Gaurav puraskar”- 18th June 2010 (By Maitri and Sawali Sanstha) for excellence in the field of Science and Education.(State Level).
- “Shikshak Bhushan” Puraskar – 25th September 2010 by Nyaic Ladha Patrakar Seva Sanstha for inculcating Sanskruti, Sanskar, Morals values and Social responsibilities of society and personality development among students (State Level).

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Yes. There is a formal computerized mechanism to obtain the feedback from students about the teachers. The feedback is collected every year in which marking is given on 4 point scale. Questions related to teachers’ abilities about command on subject, language, punctuality, explanation skills etc. are asked. The data is collected, compiled and analyzed. The evaluation is provided to the respective teacher for improvement. The performance of Individual teacher is evaluated through self appraisal report and API forms. Also performance of faculty is evaluated by respective heads and by Principal.

2.5 Evaluation Process and Reforms:

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

- Scheme of examination and evaluation methods are communicated to the students and parents through the prospectus at the time of admissions, during parent's meetings and through web site.
- During orientation, the students are given a clear idea about the syllabus and evaluation procedure.
- ATKT rules are also explained, emphasizing on the minimum marks to be scored in each paper.
- Tentative dates and month of semester end and preliminary examination are notified in college calendar at the beginning of academic year.
- The pattern of examination and papers is explained by subject teachers in the classrooms as well as displayed on the notice board well in advance.
- On behalf of University, College does Practical as well as theory evaluation, for semesters I, II, III and IV. Semester V practical exam is conducted by college while the theory is conducted by University. Semester VI, theory and practical examinations for T.Y.B.Sc are conducted by the University.
- University sends timetable of these examinations well in advance. It is displayed on the students' notice board in the college as well as on University website.
- Workshops are conducted in unison with the BOS in the College or other institutions to explain the new evaluation system. Almost all faculty members in rotation have attended the same.
- Whenever there are changes in the evaluation process, teachers are informed about it during the staff meeting.
- Copy of the university circular regarding this is given to the head of each department so that it can be implemented during assessment.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

Though we are aware of number of healthy practices published by NAAC, we cannot make drastic changes in examination reforms as our college is governed by the rules of Mumbai University.

Major reforms initiated by the University

- University has made it mandatory to all institutions affiliated to University to assess the answer books in college. Teachers feel secured through this Centralized Assessment Program (CAP), and it has become possible to announce the results in time.



- Moderation is made compulsory in the subjects where number is exceeding hundred.
- A set of three question papers is set for each course and the examination committee selects one of the three sets in a meeting. The question papers carry codes instead of nomenclature and paper numbers to observe secrecy.
- From the academic year 2011-2012 the University of Mumbai introduced the credit based semester system of examination. This year both UG and PG students are in the credit based semester system.
- Grade and the Cumulative Grade Point (CGP) are declared by the end of every semester and degree is awarded on the basis of CGPA of all the semesters.
- There is a provision of credit transfer.
- Choice based internal evaluation methods viz. active participation in classroom transactions, home assignment, seminar presentation, group discussion, survey, research project, quiz, PPT, viva voce, class test, surprise test, media publication, etc. are given weightage in internal marking.
- IT component has crept in the conduct of examination.
 - ✓ A specially designed Question Paper Delivery System where the University sends question papers online to be downloaded by the affiliating colleges by using doubly authenticated password has been adopted.
 - ✓ OMR system is introduced.

Major reforms initiated by the BNBCS

- A unique code number –PRN (Permanent Registration Number) has been allotted to every student at the time of admission, so that his/her performance can be tracked in terms of credit accumulated and in case of failures the students can know which papers/components they have to appear in additional examination.
- Computerization of all examination work up to the printing of statement of marks is exercised.
- Statement of marks carries our Hologram.
- For the computerization of results new software which is customized has been developed by our I.T. department.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

To ensure effective implementation of evaluation reforms, the examination committee, Principal, Vice Principal and Heads of the departments discuss and decide the methods of evaluation.

- ✧ The students' performance for F.Y. and S.Y.B.Sc. class are monitored by semester end examinations conducted according to norms of University.
- ✧ Practical examination is taken at the end of each semester.



- ◇ The papers are assessed in the college by centralized assessment.
- ◇ Scheme of rigorous moderation is implemented for all the subjects and for all the papers with more than 100 students.
- ◇ Results are declared within 45 days after the examination and Mark sheets are issued to students/parents.
- ◇ For self-financing courses assessment is done as per University norms.
- ◇ Parents meetings are conducted twice a year where parents and students are informed about student's progress and attendance.
- ◇ The examination committee and the examination in charge ensure that any new initiative when it comes in force is implemented properly and all stake holders are informed well in advance. For e.g. when the credit based semester system was introduced at the first year level in 2011-2012 workshops were conducted at various levels.
- ◇ The stationery required was modified.
- ◇ The software for mark sheet generation was upgraded to incorporate the necessary changes.
- ◇ The faculty of the college as members of the syllabus revision committees contributed to the evaluation reforms by designing the courses to suit the new semester and 25:75 patterns with adequate scope for summative and formative evaluation.
- ◇ They also contributed as resource persons in the syllabus revision workshops organized by different Boards of Studies of the University.
- ◇ They extended cooperation in the paper setting.
- ◇ Faculty members of the college are working as chairpersons, paper setters, examiners, moderators, flying squad members and joint chief conductors for the University examinations work.

It was not an easy task to implement these reforms. But the vision, experience and approach of our principal, the efficiency of the Exam Committee and the administrative staff and full support of the faculty enabled the college to execute it successfully at its own level.

2.5.4 Provide details on the formative and summative evaluation approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.

Now UOM has introduced a semester pattern of examinations at undergraduate and post graduate levels. Along with an internal assessment. The internals at undergraduate level is for 25% and at the post graduate level it is 40%. This has resulted in a continuous evaluation of the students. It has resulted in improved results at all levels.

- ✚ In the formative assessment the student has an internal assessment component of



25 marks which has a written test and Marks are also awarded for active participation in the class including co-curricular activities. In addition to class tests, oral testing, quiz, presentations are conducted by individual departments and the performance of the students are discussed to help them improve. The scores of the internal assessment is part of the results of the summative examination.

- ✚ The summative test of 75 marks is conducted at the end of the semester.
- ✚ The internal assessment also provides an opportunity for the teacher to identify the level of the learner and to take remedial measures.
- ✚ The summative evaluation tells the teacher of the capacity of the student to learn, retain and reproduce it in the examination in an effective manner.
- ✚ At the end of the term the learners are specifically informed on the methodology of studying, the question paper pattern, marks allotted for each module, marking and evaluating system that will be adopted. This helps the students to improve their performance in the exam that is conducted at the end of each semester.
- ✚ For summative evaluation, university pattern of evaluation is followed. The performance of each learner (student) is evaluated in two components. Internal Assessment component carries 25% marks and the external component, consisting of semester examination, carries 75% marks.
- ✚ An additional class test is conducted for students remaining absent on genuine grounds.
- ✚ An additional semester examination is also held for students who may have failed in any subject(s) or remained absent in semester examination on genuine grounds such as, medical or representing the college or university in NSS/NCC/Sports/Cultural participation, etc.
- ✚ Grade cards as per university format are given to students.

2.5.5 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

Parent –teacher meetings are held department wise and the progress of the student is communicated to the parents. The academic growth of the student is monitored on different levels. Individual departments discuss the question papers and also point out the areas where students can improve their performance. Results are analyzed and displayed on the notice board. The departments have an inbuilt mechanism of academic audit. For the first and second year, examinations are conducted by the college. The examination in charge along with the examination committee analyses the results and

discusses with the Head of the Institution. The head of the Institutions conducts individual department meeting and discusses the results in their subjects and what efforts can be taken to improve the results both in terms of pass percentage and number of first classes and distinctions. Our teachers take extra efforts for success of students in the competitive examinations like JNU, JEE, NET, MTTs, SET, etc.

Tab 2.5.5.(1) College result and University result comparison

		2009-10	2010-11	2011-12	2012-13	2013-14
T.Y. B. Sc.	College	70.48	68.57	69.77	57.48	69.61
	University	60.47	56.41	54.22	47.41	47.5
T.Y. B.Sc. (I.T.)	College	75.80	76.12	76.79	69.02	64.95
	University	56.88	54.65	51.22	47.70	56.60
M.Sc. (Chem.)	College	62.5	100	71.43	72.84	57.14
M.Sc. (I.T.)	College	57.14	100	100	89.47	88.89
M.Sc. (EVS.)	College	NA	NA	NA	100	100


College result is always higher than University results

Tab 2.5.5.(2) Academic achievements of students in the last Five years:

Sr. No.	Name of the student	Examination	Achievement
2009-10			
1	Ms.Nishigandha Kurhade	T.Y.BSc. – Mathematics	8 th Rank in General Merit List of UOM
2	Ms.Nishigandha Kurhade	IIT Jam	IIT-JAM 2010 qualified
3	Ms. Pooja Padyal	T.Y.BSc. – Chemistry	3 rd Rank in Subject Merit List of UOM
4	Mrs. Jayashri S. Menon	Ph.D – Zoology	Awarded Ph.D degree in Zoology from UOM
5	Mr. Sameer Nandkumar Surve	Ph.D – Botany	Awarded Ph.D degree in Botany from UOM
2010-11			
1	Mr. Tiwari Amitkumar Upendra	T.Y.BSc. – Statistics	2 nd Rank in General Merit List & 1 st Rank in Subject Merit List of UOM

2	Ms. Joshi Kanchan Vidyadhar	T.Y.BSc. – Statistics	9 th Rank in General Merit List of UOM
3	Ms.Varma Priyanka Ramender	T.Y.BSc. – Botany	2 nd Rank in Subject Merit List of UOM
4	Ms Sampada Ketkar	Ph.D - Zoology	Awarded Ph.D degree in Zoology from UOM
5	Ms. Minaxi Gurav	Ph.D Zoology	Awarded Ph.D degree in Zoology from UOM
2011-12			
1	Ms. Sneha Gawade	T.Y.BSc. – Statistics	4 th Rank in General Merit List & 3 rd Rank in Subject Merit List of UOM.
2	Mr Sharad D Mankumare	Ph.D - Chemistry	Awarded Ph.D degree in Chemistry from UOM
3	Mr.Kirtikumar Jain	Ph.D - Chemistry	Awarded Ph.D degree in Chemistry from UOM
2012-13			
1	Mr. Sumit Belhekar	T.Y.BSc. – Statistics	9 th Rank in General Merit List of UOM.
2	Mr. Abhinay Pise	Ph.D - Chemistry	Awarded Ph.D degree in Chemistry from UOM
2013-14			
1	Ms. Vishakha Singala	Ph.D Zoology	Awarded Ph.D degree in Zoology from UOM
2	Ms.Priyanka Barmukh	T.Y.BSc. – Biotechnology	18 th Rank in All India JNU Entrance Examination
3	Ms.Rucha Kulkarni	T.Y.BSc. – Biotechnology	718 Rank in All India JNU Entrance Examination
4	Mr. Rajeev Kumar Singh	Ph.D - Chemistry	Awarded Ph.D degree in Chemistry from UOM
5	Mr. Sudhir Mohite	Ph.D - Chemistry	Awarded Ph.D degree in Chemistry from UOM

2.5.6 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc

 At the undergraduate level the internal assessment consists of class tests for 20 marks and 5 marks for the overall behavior of the student including attendance.



- At the post graduate level, internal assessment is done through one class test of 20 marks, one presentation for 10 marks and 10 marks for overall behavior and attendance.
- This system has ensured an overall development of independent learning and communication skills.
- The examination committee frames a uniform method of evaluating internal assignments, which is according to university guidelines. All the teachers submit the filled formats on internal assessments to the examination committee.
- Of the 25 marks allotted for internal assessment 5 marks are given for overall conduct and class participation.
- The marks and assignments are preserved according to university guidelines.
- Students are informed by the teachers lucidly about the methodology of marking them at the beginning of the academic year.
- Significant improvements have been made in ensuring rigor and transparency in the internal assessment during the last four years.
- Group study projects are given to foster collaborative thinking.
- Seminar presentation is introduced in the departments to develop subject contents and communication skills at UG and PG level.
- Interactive sessions and group discussions are strengthened to inculcate critical thinking and decision making abilities.
- Facility of photocopy of answer book and revaluation is provided.
- Due to Internal Assessment, it has been observed that the attendance has improved.

2.5.7 Does the institution and individual teachers use assessment/evaluation as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Yes. The assessment or evaluation of student performance is used for planning future activities.

- ✿ A student found good in research is persuaded to take some project.
- ✿ A student who is not academically oriented is encouraged to take up job through our placement cell. Many departments have undertaken this work independently.
- ✿ Students' performance is discussed at the departmental meetings to plan for improving the performances of the students.
- ✿ It also gives an insight on learners who can be guided and motivated to improve the grades and obtain University ranks.

- ✿ The learning objectives of the subjects are defined in the teaching plans prepared by the teachers at the beginning of the year.
- ✿ The collected feedback of students establishes the achievement of objectives. The results of the exams are also an indicator of the achievement of learning objective.
- ✿ The results of each semester or term are consolidated and analyzed and disseminated to the heads of departments.
- ✿ In the departmental meetings the trends of the results of the individual subjects are discussed and remedial steps are initiated.
- ✿ The subjects where the performance is very poor the teachers take extra efforts and conduct extra lectures to enhance students' performance.
- ✿ Continuous evaluation throughout the semester and the semester end written exam is useful for evaluation of students' performance and achievements of learning objectives.
- ✿ In continuous evaluation which is done at individual and group level in a planned manner, the teacher is involved individually in the whole process.
- ✿ Slow learners or students with ATKT are included in the batch for remedial coaching. Teachers pay special attention to these students, provide them supportive additional coaching, make them solve more number of problems; compel them to attempt frequently asked questions etc. so that they can improve their results.

2.5.8 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

- Mechanism for redressal for grievances regarding evaluation patterns is as per the rules and regulations of the University of Mumbai.
- There is a separate Unfair Means Committee which handles the cases of malpractices happened during the examination and submits its report to the examination committee.
- The examination committee declares the result of such students as per the decisions of the Unfair Means Committee.
- Senior and experienced moderators are invited from other reputed colleges to conduct moderation work according to university directives.
- The process of evaluation and result preparation is perfectly transparent at both University level and college level.
- If student is not satisfied with the evaluation of any subject, student can apply for verification of marks or reevaluation within 8 days after the declaration of the result.
- Student can apply for photocopy of assessed answer paper within eight days after declaration of result.
- If he/she is not satisfied with the assessment, he/she can apply for reassessment of



that answer paper after paying required charges as per the rules of University of Mumbai.

- For any grievance against the evaluation, the students or the parents are free to meet the Principal.
- As per the request of the student the examination committee verifies the marks.
- The college helps the students in redressal of grievances related to the University examinations by providing institutional support for follow up actions.

2.6 *Student performance and Learning Outcomes:*

2.6.1 **Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?**

The concept of a National system of Education implies that up to a given level all students irrespective of caste, creed, location or sex have access to education of a comparable quality. The Higher Education policy of the Nation aims at affordable education for all, including women and the marginalized, with an emphasis on research. We are proud to state that our Vision and Mission statement is based on the elements of National policy of Education. It says –

Vision: *Imparting quality education in science.*

Mission: *To mould students into rational thinkers, competent workers and socially aware citizens.*

The college has planned and executed all its Academic and Administrative Reforms in tune with the vision and mission statements of the college.

- Academic ambience and infrastructural facilities are augmented to refine teaching learning and research culture. With coeducation system both the sexes are treated equally for education.
- Co-curricular & Extra-Curricular Activities are planned with determination to improve overall personality of the students and their active participation is encouraged.
- The programmes to inculcate values and sense of social responsibilities are planned and executed through NSS and NCC with community involvement.
- The associations and Departmental clubs organize several activities geared to discover the hidden talents of the students and promoting their skills.
- Conferences, Seminars, Workshops and lectures are conducted for developing research culture among students and teachers.



2.6.2 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

Sincerity, dedication and holistic approach of staff, creates healthy and submissive ambiance leading to achievement of the intended learning outcomes.

- ◆ Action plans are deployed throughout the institution by different committees and the academic departments to ensure that the projected goal is attained.
- ◆ Timeline planning based on intended teaching-learning outcome is the priority in following semester based academic calendar.
- ◆ There is a formal mechanism to obtain feedback from regular students which is further analyzed by the authorities which helps in improvement of the process of teaching and learning.
- ◆ Mentor cell in the college, under which around 25-30 students are allotted to each teacher works very effectively.
- ◆ Alternative methods such as remedial lectures for slow learners, provision of simplified reading materials if the student shows inability to achieve the intended learning outcome are adopted.
- ◆ Friendly atmosphere in the classrooms, improves attendance nearing to 100%.
- ◆ Research Projects by different funding agencies like UGC, DST in various subjects are undertaken. Also, BNBSC has Science square complex through which Mini research projects for college students, exhibition for school children, poster presentation on National science Day are conducted which inculcates research attitude among students of BNBSC.
- ◆ Workshops, Seminars and National level Conferences are held on the campus and in the college.
- ◆ We have different **departmental clubs** through which students are exposed to additional information and avenues in career in respective subjects.
- ◆ As explained earlier, for grooming of students to become good learners as well as socially aware citizens of developing India, they are encouraged to participate in different competitions, to take small projects, to present research papers, to take interest in extracurricular as well as social activities like NSS and NCC.
- ◆ DLLE project, certificate and ad on courses, Yoga teaching, “Gandhi vichar Manch” exams, association with NGOs like Hariali, Akshara, Sobati reflects strategies adopted to improve the thought process and thus quality of students.
- ◆ With the paradigm shift in the global educational world the college has brought in several innovative aspects in the ongoing system through new job oriented courses, certificate courses, post graduate courses for the students. Keeping up



with the modern times the college applies for various grants for research enhancement and infrastructural development.

- ◆ Introducing NCC as a subject in place of Foundation course for students is one of the examples where in the institute considers and balances the needs of students as well as key stakeholder. Also Inter disciplinary B.Sc. degree course has been proposed for added benefits of the students.

2.6.3 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (quality Jobs, entrepreneurship, innovation and research aptitude) of the courses offered?

BNBCS takes immense efforts to enhance the social and economic relevance of the various courses offered. BNBCS believes that “learning comes with values.” To give a kaleidoscopic dimension to the courses offered, the following additional efforts are taken by the college.

- i. Hands on training programmes like pot making under DLLE committee, MATSAAHAR under Botany club are conducted which helps in running small businesses.
 - ii. Awareness on physical and psychological health is given by conducting seminars by various doctors, gynecologists and psychiatrics under various club activities.
 - iii. Entrepreneurship training programme like “How to be smart investor” by NSS is conducted every year.
 - iv. In addition to this, enrichment courses like personality development, fine Arts, yoga, public speaking, etc. are offered.
 - v. BNBCS conduct different Certificate courses / Short term courses.(Details given in 1.2.1)
- ❖ BNBCS tries to impart quality education giving due weightage to Co curricular / Extra-curricular activities.
College has
 - 1) Free Yoga Classes.
 - 2) NCC army (boys), NCC army (girls) and NCC Naval units.
 - 3) NSS unit for boys & girls.
 - 4) Different Associations like cultural, dramatics, magazine, and literary etc
 - 5) Departmental Clubs like Zoology - : **GREEN FORCE NATURE CLUB**, Botany - : **SHRISHTI CLUB**, Chemistry - : **URJA**, Mathematics - : **SIDDHANT**, Statistics - : **SANKHYA**, Physics: - **AVISHKAR, I.T. CLUB, BIOTECH CLUB**, and **MICROBIOLOGY CLUB**.
 - ❖ Treks are arranged through **Hiking and Trekking** committee.



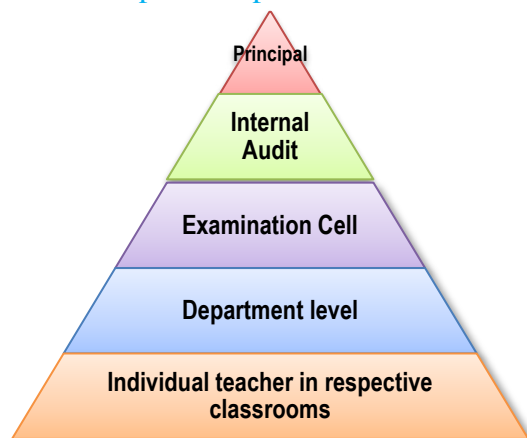
- ❖ **DLLE** programme of Mumbai University.
- ❖ We are having a well equipped **gymkhana** in which indoor games like Chess, Carrom, Table-tennis are available, we also provide facilities to the students to participate in any other outdoor games. We have developed a well equipped gymnasium.
- ❖ **Cultural, Literary, Magazine** associations help students to explore their talent and build overall personality.
- ❖ **Science Square and School college Complex Programme**, help the students to develop analytical approach, and motivate them for research.
- ❖ **Women Development Cell (WDC)** guides students, especially girls, to know their rights and conduct lectures and training programmes to make the students strong and self reliant.
- ❖ Placement cell –“Grab-it”, conducts campus interviews for T.Y.B.Sc. and M.Sc. students.
- ❖ We arrange **Career Melava** for Junior and Degree college students to help them select their career for a bright and successful career.
- ❖ We have **mentor system**, through which we monitor the progress of our students.
- ❖ The **students' council** is formed in accordance with the provision of MU Act. 1994.
- ❖ Past students can become a member of **Alumni Association**. Forms are available on our website vpmthane.org.
- ❖ **“Jagar Janivancha”**: Our College is participating in Maharashtra Government's campaign “Jagar Janivancha” which aims at inculcating gender equality and women empowerment among the students.
- ❖ **Research Scholar's Programme**: From this year, we are starting new activity for overall development of personality of students. This programme is of 18 months in which F.Y. and S.Y. students will be given training for Science Research Project, life skills, Soft skills and Computer skills.

2.6.4 **How does the institution collect and analyse data on student learning outcomes and use it for planning and overcoming barriers of learning?**

The College collects and analyses data on student learning outcomes through continuous evaluation system comprising of assignments, presentations, unit tests and semester end tests. The institute also takes feedback of the students to evaluate the student learning outcome. If the Principal and the heads of departments find any barrier in learning, suitable steps are initiated to overcome them. Some of the steps taken are arrangement of extra classes for the weak students, planning of doubt clearing sessions. BNBCS encourage students to undergo summer training; subject oriented training programmes like MTTs, Olympiads. It also encourages students to take up community based research work like solid waste management.

2.6.5 How does the institution monitor and ensure the achievement of learning outcomes

The mentoring system in most of the courses and the excellent student teacher relationship has helped us to ensure the achievement of learning outcomes.



The institution monitors the achievement of learning outcomes on different levels. BNBSC conducts tutorials, assignments, unit tests and term end tests and monitors the progress of the students. Based on the total attendance, participation in the class, marks scored in the assignments and unit tests the College monitors and ensures the achievement of learning outcomes. For slow learners BNBSC conducts extra lectures, remedial lectures

2.6.6 What are the graduate attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?

- ✓ The graduate attributes specified by the college are besides employability, social and ethical values of high standards, application skills, problem solving skills and to overcome any challenging situations.
- ✓ Global in attitude and competence, Local in action and ability.
- ✓ Environmental awareness and responsiveness.
- ✓ Culturally and socially aware.
- ✓ Active and lifelong learners

The Bandodkarites get the opportunity to acquire professional and cultural skills that enable them to adapt themselves in different environments. The graduates develop cultural, environmental, social and ethical awareness and skills. The education imparted has holistic approach to learning. Students are involved in various activities that create social awareness and better quality in education. The College ensures that by the time the students become graduates, they become active and lifelong learners, capable of increasing their knowledge and skill to match their career needs. The students are encouraged to “Think Global and Act Local” The College confirms that the graduates get an opportunity to develop creative and innovative ways of knowing, thinking and doing and always applies an observant mind and sophisticated approach in their professional life. In short, we can say that the College helps the student to develop useful skills, qualities and abilities which he might never have discovered if he had not come to BANDODKAR.

Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

Quality education aims at developing a balanced set of capabilities of students as they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies and enhance individual well being. Quality education and hence teaching –learning process puts student in centre and helps them to reach their full potential. Quality education requires students’ active participation. BNBCS continuously try for sustainable quality and remain ready for to accept the challenges to attain goal.

While leading on the path of excellence, suggestions given by NAAC peer team, internal, external audit, and stakeholders are taken in to consideration to develop strategic process to mitigate challenges.

Table 2 Strategic objectives at BNBCS:

Vision: Imparting Quality Education in Science		
Mission: To mould the student into rational thinkers, competent workers and socially aware citizens.		
Strategic areas	Short term objectives	Long term objectives
Institutional Growth	<ul style="list-style-type: none"> a. To attain horizontal growth i.e. increase in number of departments as per the growing educational demands. b. International collaboration c. Continuous personal and professional growth. 	<ul style="list-style-type: none"> a. To attain vertical at institutional level (Vertical growths refer to getting sanction for Ph.D in all science subjects). b. Attain autonomy <p>To be the Best Educational institute in the field of Science.</p>
Administrative facilities	Encouraging administrative staff to maintain the data through the proper use of ICT	Well Qualified Administrative staff Making the students data available on the web for the parents. (attendance, results etc).
Teaching and learning	<ul style="list-style-type: none"> a. Encouraging teachers to adopt the use of ICT while teaching. b. Make the teachers conversant with innovative teaching methods 	Continuous Agility
Research	Students	
	<ul style="list-style-type: none"> a. Research scholars Program for students b. Mini research projects 	<ul style="list-style-type: none"> a. To inculcate research temperament in the students. b. To establish research hub for bio

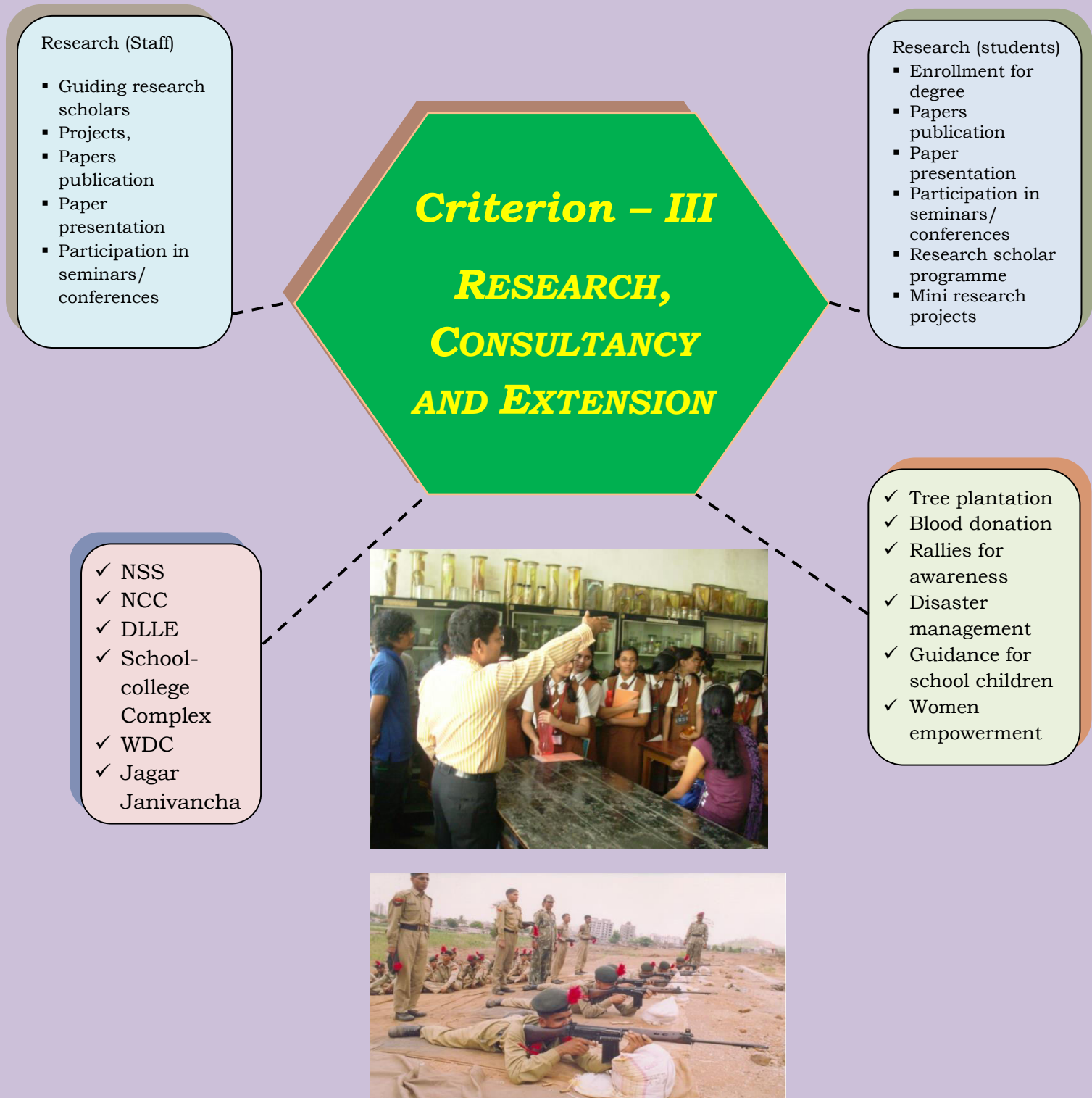


		<p>c. Science Square activities</p> <p>d. Yearly exposure to National Conferences organized by the College</p>	<p>science.</p> <p>c. To start regular coaching for preparation of competitive exams</p>
	Teaching Staff	<p>a. Teachers are persuaded to apply for projects funded by various funding agencies.</p> <p>b. Motivation to publish papers in peer reviewed journals.</p> <p>c. Encouragement to participate and present paper in conferences/seminars/workshops.</p> <p>d. Teachers are encouraged to enhance their qualification by acquiring PhD degree.</p> <p>e. Yearly exposure to National Conferences organized by the College.</p> <p>f. Training for updating their computer skills</p>	<p>a. To increase and improve the ongoing research</p> <p>b. To organize International Conferences.</p> <p>c. To motivate the teachers to take for consultancy projects</p>
Infrastructure		<p>a. Increase in no. of Classrooms/labs and research labs</p> <p>b. CCTV enabled /Wi-Fi enabled/biometry</p>	<p>a. Extension of existing building.</p> <p>b. Library</p> <p>c. More effective Security systems</p>
Equipments		<p>a. To have the best equipments and laboratories up to the satisfaction of the students.</p> <p>b. To have State of art laboratory, through grants from FIST, DBT, UGC. (For Ex. Physics & Biotechnology, Microbiology Laboratory)</p>	<p>a. To have the best equipments and laboratories as per the global norms and standards.</p> <p>b. Taking cue from Department of Physics of the college, we aim to develop all the laboratories in the college through grants from FIST, DBT, UGC.</p>
Stakeholder	Students	<p>a. Improving soft skills of the student.</p> <p>b. Providing them access to a comprehensive array of</p>	<p>a. Empowering the students for higher studies.</p> <p>b. To enhance the leadership quality, communication skill, time</p>



		careers in science. c. Computer training for students	management, team building etc in the students, promotion of more extension programmes
	Parents	<ul style="list-style-type: none"> a. Security of their ward is addressed at regular basis. b. New job oriented courses are introduced. c. Providing homely environment in the institution for their wards. d. Compulsory yoga training to maintain positive mental and physical health. 	<ul style="list-style-type: none"> a. Introducing job oriented degree courses and certificate courses with collaboration with Industries
	Society	<ul style="list-style-type: none"> a. Outreach programmes with HOPE, Hariyali. b. Developing students into socially responsible citizens. c. College segregates the waste generated by all the departments and wet garbage is converted into manure by using bio-composting. d. All the green waste from the campus is also converted into manure. This is used to beautify our campus gardens. 	<ul style="list-style-type: none"> a. Enhancing the consultancy services b. Expansion of School- College Complex to promote and enhance network between college and neighborhood schools and society. c. Strong Extension programmes like NSS,NCC to serve the society.

Research is formalized curiosity. It is poking and prying with a purpose. ~ Zora Neale Hurston



CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research:

We trust on Steve Jobs saying- "Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it."

3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

Yes. BNBCS is a recognized research center. The table below shows the affiliations.

Table 3.1.1(1) Recognition for research work

Degree	Recognized in Subjects	Affiliated to the University
M. Sc. By Research & Ph. D.	Chemistry, Botany, Zoology, Physics, Environmental Science.	University of Mumbai
Ph. D.	Chemistry Zoology, Physics	J. J. Tibrewala University Rajasthan
Ph. D.	Zoology	YCMOU, Nashik.
M. Phil	Chemistry Zoology	Allagappa University

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

Yes. BNBCS has a research committee to promote research culture and to monitor research activities. The research committee comprises of Principal, Vice Principal, a team of twelve teachers who are actively involved in research and one administrative staff.

The objectives of the committee are

- To Motivate the faculty members to undertake minor and major research projects,
- To monitor the ongoing research projects,
- To conduct workshops on Research Methodology to develop a research culture among the students.



- To monitor the progress of research work at regular intervals and providing funding to the student research projects and other requirements, through college budget.

The committee plays the role of a facilitator.

➔ **Recommendations: The committee suggested the following plans for developing research culture among students and the staff-**

- The committee accepted and supported the suggestion from the VPM to arrange at least one conference every year along with two preparatory workshops (to introduce the theme to the students and staff so as to benefit them). It was suggested that departments will arrange them in rotation.
- To start Research scholar programme- It was suggested to select mainly F.Y.B.Sc students for this programme by taking an entrance test and then train them systematically for carrying out research; and also developing their personality.
- To continue the student mini research projects programme for the other students who are willing to do research projects so that the students not selected in the Research Scholar programme will also be able to join research activity by doing research project.
- To publish online Research Journal in which the students and staff will be able to publish their research work and gain confidence to publish in a standard format.
- To arrange lectures by eminent scientist for students and teachers to make them aware of the current scenario in the field of research.
- To encourage students to participate in activities conducted at University or National levels. For example “AAVISHKAR” competition organized by the UOM, National Conferences.
- To celebrate Science Day.
- To conduct interviews for selection of Ph.D students.
- To conduct the course in Computer application, statistical analysis for the research students which is a mandatory part of Ph.D Course.
- To arrange the workshops to provide information and motivate staff members to apply for funding of research proposal from UOM, UGC, DST, and MOEF.
- To arrange the workshops for research scholars and teachers to update ICT knowledge.
- To display Circulars calling for research proposals on College Notice Board and make sample proposals available for reference, so as to encourage and guide the young teaching staff.
- To display Circulars / invitations regarding seminars / conferences / workshops for the staff and the students.

**→ Implemntation and their impact:**

- To inculcate research aptitude among the students, a Research Scholar Programme has been started. In this programme the students (mainly of F.Y.B.Sc.) are selected through written test and interview. The selected students are given training in Research Methodology, Personality development, Yoga etc. The students work under the guidance of the research committee members and complete their research project. This has increased good quality research among the students. The interaction with each other helps both, the students and the teachers, in developing new ideas of research.
- College arranges lectures by eminent scientists for students and teachers to make them aware of the current scenario in the field of research.

For Example - In 2013 (i). Prof. Jean Cadet, Adviser Atomic energy France delivered a lecture on “Oxidative generated and Photo induced damage to DNA”. (ii).

Dr. Pushpalata Surjekar Senior manager ARCH Pharma labs Ltd, upgraded the knowledge of Patent Technology for the research scholars. A detail list of the guests invited to the college is given in 3.7.4 .Such lectures keep the students and the staff updated about the recent developments in the research; and also gives them new ideas for research.

- Every year at least one National Conference is arranged by the Departments on rotation in the collaboration with other research institutes. Two preparatory workshops precede the conference. These workshops are meant to upgrade the students about the recent trends, issues and challenges of the conference theme. The students are given topics for research for study and persuaded asked to participate in the poster making competition and also in paper presentation. This helps the students to gain the confidence to present their work boldly.

These conferences and workshops there is interaction with many eminent scientists. This has helped in creating awareness about the recent trends in research among the students and staff.

- To encourage students to participate in activities conducted at University levels, research projects are given to under graduate, post graduate students and Ph.D students. The Students present their research work in various conferences. For example-

- ✓ **At University level** – Every year the University of Mumbai organizes a competition “AVISHKAR” in which the UG and PG students can present their work. In years 2013 and 2014 Six groups of undergraduate students participated and this year three groups are selected for next level.

- ✓ **National Level** - In National Conferences Photochemistry, FUTECH, Cloud-Technology, FAVIO and NETBT about 150 students in groups presented, their research work in form of poster or oral presentation.

- ✓ **International Level** –

- In International conference of Indian chemical Society held at Madurai Raipur,



- Chandigarh in years 2012, 2013, 2014 respectively- Every year three students presented their research work.
- International conference on Environment and Humanity “Eco Revolution-2012” held in Colombo, Sri Lanka- one student participated
 - International conference “Innovations in chemical research and Applied Chemical Sciences” 12th 13th January 2015 at CHM college - Three students participated.
 - International conference at Thailand ‘Emerging Trends and Challenges in Science and Technology (EATEST-2014)’ : November 03-08, 2014- One student presented her work.
- To celebrate Science day the College Science Square committee arranges poster competitions on various scientific topics.
 - The online research journal E-JBNB is published yearly since academic year 2012- 13.
 - Interviews are arranged for selection of Ph.D Students who have cleared PET examination of University of Mumbai.
 - College conducts course of 30 Hr duration in Computer application, Statistical analysis and research methodology for research students perusing Ph.D. This provides them the facility to do the course work at the institute itself and also updates their knowledge required for research and presentation.
 - College arranged a National Seminar on “Avenues on Scientific Research Proposal Grants” in 2011 to provide information and to motivate staff members to apply for funding of research proposal from UOM, UGC and other funding agencies. It has resulted in more teachers applying for research proposals, increasing the number of sanctioned projects.
 - Workshop on LATEX (2012), Movie making (2013- 14) and PICCASSO (2013, 2014) were arranged for research scholars and teachers to update ICT knowledge.

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?

- Autonomy to the principal investigator - Yes
- Timely availability or release of resources - Yes
- Adequate infrastructure and human resources - Yes
- Time-off, reduced teaching load, special leave etc. to teachers:
According to the UGC norms every teacher has to be given a teaching work load of 20 hours per week. Thus the work load cannot be reduced. However, in case of need of some field work or analysis where the teacher has to take a time off, some adjustments are always made at the departmental level by colleagues & the teaching work is shared.
- Support in terms of technology and information needs: – Yes, the instruments required



are made available and free internet facility is made available 24 hours.

- Facilitate timely auditing and submission of utilization certificate to the funding authorities:- Yes, it is promptly done by the office.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

- College has active Science Square committee which conducts **Research scholars' programme**. In **Research scholars' programme** there are 13 modules that include lectures on research Methodology, Statistical analysis, how to write research paper, how to present research work in the poster format, making the power point, Computer training and Yoga training etc.
- The college conducts at least one conference every year and two preparatory workshops before the Conference. Departmental clubs organize Symposia / lectures by eminent scholars.
- Students are motivated to participate in the intercollegiate research based event and the required guidance is given.
- Field visits, excursions and industrial visits are arranged under able guidance of the teachers. It is obligatory for the students to prepare and submit reports of these visits.
- Students undertake research projects under the guidance of college staff or eminent scientists from other institutions in some of the PG programs like M. Sc. Environmental Sciences, Biodiversity and wild life management, Information technology.
- Guidance is provided to PG students to prepare for Ph.D. Entrance Test (PET) conducted by University of Mumbai.
- Guidance is provided to students to prepare for examinations like UGC JRF-NET, GATE, etc.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.

Table 3.1.5(1) Research Guides and number of research students (last five years data)

Sr. No	Name of the faculty Department	Ph.D completed	Ph.D Perusing	M.Sc. By Research completed	M.Sc. By Research Perusing
1	Dr. M. K. Pejaver Zoology	1	10	-	1
2	Dr N. N. Patil Zoology	1	1	-	-
3	Dr R. P. Athalye Zoology	-	4	-	-
4	Dr. M. S. Mulgaonkar Botany	1	-	-	-
5	Dr. M. N. Nyayte Physics	-	2 at other centre	-	-
6	Dr. M. V. Rathnam Chemistry	5	4	2	-
7	Dr. M. J. Kolet Botany	-	-	-	1
8	Dr. Moitreyee Saha Botany	-	1	-	-
9	Dr P. N. Kurve Zoology	-	1	-	-
10	Dr.(Mrs.) A. S. Goswami-Giri Chemistry	-	6	2	1
11	Dr. V. M. Jamdhade Botany	-	1	-	-
12	Dr .(Mrs.) S. V. Mahajan	1	1	-	-
13	Dr .(Mrs.) P. V. Jagasia	-	-	1	-
	Total	9	31	5	3

Table 3.1.5(2) Number of teachers involved in research activities department wise

Name of the Department	Leading Research Projects	Individual / collaborative research	Guiding student for Mini Research project .
Botany	3	6	3
Chemistry	2	6	3
Mathematics	1	2	2
Physics	1	6	2
Statistics	1	3	2
Zoology	4	8	5
Information technology & Comp.Sc.	-	4	4
Biotechnology & Microbiology	-	5	4
Biochemistry	-	3	1
Environmental Science/ Biodiversity and conservation	-	3	3
Foundation course	-	1	1
Human Science /Interdisciplinary course	-	1	-
Library	1	1	1
Gymkhana		1	
Total	13	50	29

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

The preparatory workshops before each conference are for training and sensitization of staff and students.

In 2011 National Seminar on “Avenues on Scientific Research Proposal Grants” was arranged in the college to motivate and train the teachers to apply for Research Projects.

As mentioned earlier in year 2014-15 the students are being trained in the Research Scholar Programme.

3.1.7 Provide details of prioritised research areas and the expertise available with the institution.

Table 3.1.7(1) Department wise data on prioritised research areas and the expertise available

Department	Prioritized Research Areas	Potential Expertise for Consultancy
Department of Physics	Magnetization studies in rare Earth Inter Metallic alloys, Magnetostrictive investigation, Preparation of Intermetallic Alloys in induction furnace (1800 ^o C, under vacuum of 10 ⁻⁶ torr), Preparation and Characterization of Rare Earth doped photoluminance materials.	Preparation of Intermetallic compounds at very high temperature in induction furnace. Determination of elastic properties and velocities of elastic waves in solid and liquid using ultrasonic interferometer.
Department of Chemistry	Thermodynamics, Organic and Bio Chemistry, Natural Products, Agro pesticide, formulations of drugs.	Physical properties of chemicals Separation Technology Protein chemistry, enzymology, kinetics,
Department of Statistics	Collection of data, its presentation and Statistical Analysis	Statistical Analysis using software like SPSS, Minitab.
Department of Zoology	Ecological studies, Toxicology, Limnology Biodiversity and Entomology. Benthic study. Physiology, Insects & Polychaete taxonomy,	Environment Impact Assessment, Fishery, Insects & Polychaete taxonomy, Solid Waste management, lake management, fish taxonomy.
Department of Botany	Orchids & Pharmacogony Mycology and Environmental Biotechnology, Plant tissue culture and Environmental biotechnology Algae	Rural Biotechnology , Orchids, Plant Taxonomy , fungal Biotechnology
Department of Computer Science and Information Technology	Software development, Website development, ICT techniques	Software development, Website development, ICT techniques
Department of Environment Science	Environmental Studies, Biodiversity, Biocomposting, Vermicomposting, Study of Plankton, Study of Bentothos, Study of Birds, EIA, Noise pollution Study, Physico-chemical Analysis,	Environment Impact Assessment Studies, Biodiversity surveys, Biocomposting, Vermicomposting, Study of Plankton, Study of Bentothos, Bird survey, Noise pollution , Physico-chemical Analysis.



Department of Microbiology and Biotechnology	Environmental Microbiology, Bioremediation, Molecular Biology.	Anti-microbial Assays, Microbiological Techniques, Molecular biological studies. Setting Biotechnology and Microbiology lab.
Department of Biochemistry	Biochemical analysis Phytochemistry	Biochemical analysis Phytochemical Studies

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

- Organizing National seminars/Conferences along with two preparatory workshops every year. The preparatory workshops are arranged specifically with the aim that the students will get more exposure and interaction with the experts in the field. In every conference with its two preparatory workshops at least 10 to 12 top eminent researchers visit the institution. There are about 20 researchers from different institutions who have presented their research work.
- Through departmental club activities eminent researchers are invited to the college to interact with students and staff. Every club organizes 2 to 4 programmes every year. For example - Physics departmental club organized a series of talks by " Young Scientists " where researchers who have completed Ph. D recently or working for Ph. D in an interesting topic were called to deliver lecture on their topics. Due to such talks the students and teachers get exposed to new fields of research.
- Such lectures are arranged through the collaborative programs with other institutes. For example the college is organizing series of lectures on biodiversity by collaborating with NGO – “Here On Project Environment (HOPE), Thane.”
- The college campus has other colleges of VPM which are organizing conferences, seminars, and workshops. The students and staff of BNBCS can attend the conferences by prior registration. This provides them an opportunity to interact with the scientists from various fields of other faculties.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

NIL, but one teacher has taken FIP for the Ph.D. work and one staff has applied for the same.



3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

The transfer of knowledge gained / research findings from lab to land (people) are done in following ways.

- Many of our teachers provide guidance to the students doing research projects in NGO Jidnyasa and for participating in Children Science Congress. In college school complex programme / science square programme school students visit various departments in the college where they are briefed about the research activity in the department and the research findings.
- College researchers provide consultancy to Municipal corporations mainly on environmental issues and thus the study results get transferred to the corporations. Whenever the researchers from college get significant findings they are communicated to the Municipal corporations or concerned agencies so that they can plan action.
- Whenever conferences are organized and two preparatory workshops are arranged for the students, the research findings reach them.
- Many a time the research guiding professors from our institute visit NGO's or other colleges to give guest lectures based on their research, where they interact with people.
- The researchers from the college are invited as keynote speakers or for lead lectures at National/International conferences where they deliver lectures on the topic of their research. Since these conferences are well attended by many teachers and students from different colleges and institutions; the research work reaches people.
- The research guides offer consultancy to other institutes /teachers. They also give advice and guidance to the NGOs like Hariyali, HOPE, Jidnyasa. For example our Principal is a life member of Hariyali and Vice President of Jidnyasa Science wing and provides guidance to the NGOs in environment and research related issues. A Research guide from our college and the research students has provided guidance to develop Butterfly Garden.
- The departmental research work is described briefly to the parents in the parents meetings.



3.2 Resource Mobilization for Research:

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

The Government does not have any such allocation hence there is no provision for the research in regular budget. However the faculty members are encouraged to write research proposals to obtain grants. College provides the overheads to the researchers for research work. All infrastructural support is provided by the Institution. All students' research projects are supported by the Institution.

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Instead of providing seed money in cash, well developed laboratories with all required infrastructure are developed by the management. Instruments are provided as and when required. J-Stor, Manupatra, N-List, Art Stor paid databases are made available to the students and staff. Apart from this there are following provisions-

- Provision to supply material such as chemicals and glassware.
- Additional funds to purchase equipments required for research.
- Provision of funds for Maintenance of equipments.

3.2.3 What are the financial provisions made available to support student research projects by students?

Instead of having separate financial budget, the students are provided all required chemicals, glassware and equipments. As the college receives grants from UGC/FIST, the required provisions can be made. . BNBCS has got sanction of an amount of Rs one crore in 2013 under the DST FIST program for strengthening teaching and research at undergraduate and postgraduate levels in science departments. The research guides get major/minor research funding in which there is sufficient provision for equipments, glassware, chemicals and also the field visits.

Student research projects are at three levels UG, PG and doctoral. In doctoral work, the students work under the research guide who provides funds from their research projects or they are supported by the Institution by providing the entire required infrastructure, chemicals, glassware's etc. The UG and PG research projects are entirely supported by college. Organizations like HOPE / Envirovigil support low cost research projects especially of the students.



3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

There is a good cooperation between the departments to undertake interdisciplinary work. For example: staff from Statistics department helps in doing statistical analysis of the data of the Ph. D students & research projects. Biotechnology and Microbiology departments extend help for studying aspects of microbiology & bacterial cultures. Department of chemistry helps in providing guidance for chemical preparations and different analytical techniques.

The course work module made available to the Ph.D. research students has interdisciplinary support from IT, Statistics and other departments.

The research projects though are written by a Principal Investigator; have interdisciplinary approach e.g. Biostatistics is an integral part of most of the research projects. Projects in environmental science have components in subjects Zoology, Botany, Chemistry and Statistics.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

We strongly believe in maximum utilization of resources for which; especially instruments are shared.

- The research facilities including the laboratory and equipments are shared by other departments as and when required. The Environmental Science research students make maximum utilization of the Zoology Lab. The Glassware and Chemicals from the Chemistry Department are also used. Research based on microbiology is given facility in the Microbiology Department. Microscopes and many other instruments are used in consultancy. The departments of Chemistry, Botany, Zoology and Biotechnology have shared facilities which have resulted in maximum output from these departments.
- The college is planning to sign MOUs with the other organizations like SACON, Coimbatore; Teri etc for the maximum utility of the infrastructure.
- The students from the V.P.M's Polytechnic, Thane visit regularly the laboratories for training. The PG Diploma students also use the laboratory infrastructure.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.-

Yes. The Department of Chemistry has received Extra fine chemicals worth Rs. 1.5 lac from Glaxo Smith Company.

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organisations. Provide details of ongoing and completed projects and grants received during the last four years.

Table 3.2.7(1) research projects sanctioned during last four years

Name of Principle investigator	Title	Amount (Rs.)	Year
UGC Major Research Projects			
Dr.(Mrs.) M. S. Mulgaonkar	“Surveillance of habit distribution of medicinally important orchids from Maharashtra (Western Ghats) with mention to their substance composition and conservation of some rare and endangered orchids in orchidarium.”	4,81,300	2011-12
Dr. M. V. Rathnam	“Study of Organic liquid-Chemistry of liquid mixtures of ester in cyclic ethers.”	5,88,000	2011-12
Dr.(Mrs.) M. K. Pejaver	Study of diversity of Scarabaeid beetles in Pune city & effect of some ecological parameters on the life history of <i>Protaetia aurichalcea</i> .	10,00,500	2012-13
Dr.(Mrs.) P. N. Kurve	To study season dependent variations in biodiversity & pollution status on the basis of indicator taxa of inter-tidal zones along the coastline of Alibaugh, Dist. Raigad, Maharashtra.	11,87,800	2012-13
Dr. M. N. Nyayate	Study of Magnetostrictive properties in the alloys of Ferromagnetic and Rare Earth Metals	10,43,000	2013-14
Total of Major research project		43,00,600	
UGC Minor Research Projects			
Dr.(Mrs.) P. V. Jagasia	The Spectrophotometric determination of Tannins, Vitamin C and anion using a specific reagent in herbal formulation, synthetic mixtures and real samples.	8,5000	2013-14
Mrs. A .S. Shinde	Computational Methods for Solving the Partial Differential Equations and its Applications.	2,00,000	2013-14
Mrs. K. H. Manjrekar	A Survey of Awareness and Use of Institutional Repositories in College Libraries in Mumbai City.	1,00,000	2013-14
Mrs. M. J. Gholba	Quality Audit (QA) effective tool for IQAC	80,000	2013-14
Total		4,65,000	



University of Mumbai Projects			
Dr.(Mrs.) M. K. Pejaver	Bio-compost- “ a Niche for insect diversity”	20,000	2009-10
Dr.(Mrs.) N.N.Patil	“Flora and Vertebrate Fauna of Malwada region in Taluka Vikramgad”	20,000	2009-10
Dr.(Mrs.) A. S. Goswami-Giri	Mechanism action of lanthana against wood destroying agency.	30,000	2009-10
Dr.(Mrs.) P. N. Kurve	“To study the diversity in marine algae and shells found at coast Barshiv village near Alibaug”	16,000	2009-10
Dr. M. J. Kolet	“Studies on the application of fungal inoculums for efficient management of cellulosic residues.”	19,000	2010-11
Dr. R. P. Athalye	Assessment of some molluscan shells as a source of calcium for Aurvedic Medicines	30,000	2010-11
Dr.(Mrs.) A. S. Bhardwaj	Spectrophotometric Analysis of different species of Tagetuserecta UL Colourant at different pH value	16,000	2011-12
Dr.(Mrs.) P. V. Jagasia	“Sepctrophotometric Determination of onions by solvent extraction using a specific reagent”	16,000	2011-12
Dr.(Mrs.) N. N. Patil	Diversity of spiders form malwada forest in vikramgad taluka of thane dist., Maharashtra, India.	33,400	2012-13
Dr.(Mrs.) A. S. Goswami-Giri	Severance of L-dopa from <i>Solanum Xanthocarpum</i> .	27,400	2012-13
Dr. (Mrs.) P. N. Kurve	Survey of marine macro algae & macro fauna from intertidal zone of Borli- mandia coast, dist. Raigad Maharashtra.	23,400	2012-13
Dr.(Mrs.) M. S. Mulgaonkar	Comparative study of stomata on some epiphytic orchids from Thane & adjacent region.	26,400	2012-13
Dr. M. N. Nyayate	Development & Measurement of effectiveness of Educative tool for improvement in the concept of Electricity and magnetism of undergraduate students.	33,400	2012-13
Dr. M.J. Kolet	Mycological investigations on paint films.	30,000	2014-15
Dr.(Mrs.) M. Saha	Comparative antioxidant evaluation of <i>Tridax procumbens</i> L. and <i>Cissampelos paveira</i> L.	25,000	2014-15
Total		3,66000	

Sanctioned By NGO Paryavaran Dashkata Mancha Thane			
Dr. (Mrs.) P. N. Kurve	Survey of intertidal marine macroalgae and macrofauna of Borli-Mandla coast, Dist. Raigad, Maharashtra”.	10,000	2012-13
Total Research Grant sanctioned in last five years		51,41,600	

3.3 Research Facilities:

3.3.1 What are the research facilities available to the students and research scholars within the campus?

The college provides ample research facilities to the students and research scholars.

- Well equipped laboratories are available in Physics, Chemistry, Botany, Zoology, Biotechnology, Microbiology and Environmental Science.
- Free internet facility is available to all students, staff and research scholars in the departments and the library. This facility is available 24 hours and on all days of the year.
- The institute provides excellent reference facilities on its website with various paid and open source databases like J-STOR, Manupatra, Art Stor, N-List, CMIE, Open Access Databases etc.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

- Research committee arranges workshop to guide the researchers and teachers to apply for projects on new topics.
- Conferences and workshops are regularly arranged through which teachers and students come to know about emerging trends in research.
- Students research projects and research scholar programme lead to excellent interaction between research students and teachers. This facilitates exchange of ideas from new emerging trends.
- We promote more and more staff members to apply for research projects, hence grants become available in significant amounts. Through these grants the high end instruments such as FTIR, Phase contrast microscope, Stereoscopic microscope etc are purchased. Sometimes college has made provision for instruments like Densitometer required for research in Physical chemistry.
- Specific budget is allocated through the grants received from FIST/ UGC.



- Apart from development of laboratory facilities, various other aspects are also given due attention such as –
 - i. Getting recognition to new subjects for Ph.D. e.g. Environmental Science- Presently BNBCS is the only recognized college for Ph.D. course in Environmental Science.
 - ii. Making provision for additional seats for Ph. D. in Zoology.
 - iii. Collaborations/MOU with SACON and TERI are in process.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If 'yes', what are the instruments/facilities created during the last four years.

Yes. The Department of Chemistry has received Extra fine chemicals worth Rs. 1.5 lac from Glaxo Smith Company.

We are in the process to increase the collaborations with industries.

3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

- The students and research scholars from our institute can avail research facilities and library facilities at Bhabha Atomic research centre, IIT (Mumbai), Institute of Science (Mumbai), Bombay Natural History Society, National Institute of Oceanography, other colleges, Agricultural University departments at Dapoli, Pune, Karjat etc. We provide them a letter so that they get the facility either free or at subsidized rate.
- For the research projects related to studies on experimental animals, the students use the animal house facility at Ruia College, Matunga or TDM laboratory, Sion.
- Students from outside the campus / others research laboratories can avail library and research facility on prior permission of principal. Library facility made available for external members with moderate charges. They can also consult the expert from our institution either by paying consultancy fee or free of cost as the case may be.

3.3.5 Provide details on the library/ information resource centre or any other facilities available specifically for the researchers?

In the departments engaged in research activity apart from computers provided to the department, a separate computer is provided to research laboratory which is with internet facility.

On college website using internet excellent facility for reference work has been provided 24X7. The paid databases such as J-stor, Jarts, Manupatra, N-List etc are available to the students. The college has 250 computers with Wi- Fi connectivity and also the students can register their own laptops for free Wi-Fi connectivity and avail the reference facility.



3.3.6 What are the collaborative researches facilities developed / created by the research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.

BNBCS has initiated the process of collaboration for research work with TERI, New Delhi and SACON, Coimbatore. The college has developed well equipped laboratories with hi-tech equipments, computer with internet facility, modern library facilities through the grants received from UGC, DST-FIST and major research project.

3.4 Research Publications and Awards:

3.4.1 Highlight the major research achievements of the staff and students in terms of

- * Patents obtained and filed (process and product) there details are:-
 - i. C. S. Thatte, M. V. Rathnam ,”Preparation of New class of ‘Anthranilate Based’ Potential Sunscreens by Selective Transesterification.” Intellectual Property of India (Patents) Govt. of India Appl. No. 1672/Mumbai/2011, Journal No. 34/2011, Publication Date 26/08/2011.
 - ii. S.D.Rathod, A.P. Patil et al. ,National Patent procured on ‘Anti-Dandruff Hair Oil Composition’, Application No.: 765/MUM/2014, Date of filing of application: 06/03/2014; Published in The Patent Office Journal, Intellectual Property, India, Part-I, dated-28/03/2014, Page-9651.
 - iii. S.D.Rathod et al.National Patent on ‘Herbal Topical Composition For Treatment Of Acne Vulgaris’, Application No. : 2556/MUM/2014, Date of filing of Application: 08/08/2014; Published in The Patent Office Journal, Intellectual Property, India, dated : 22/08/2014, Journal No. - 34/2014
 - * Research studies or surveys benefiting the community or improving the services &
 - * Research inputs contributing to new initiatives and social development
- Give table showing benefits of the research papers.

Our Institution being mainly an undergraduate institution is more inclined to with teaching undergraduate students. However, over a period of time we have realized that research and teaching cannot be delinked. To implement innovative ideas in teaching, teachers are involving in research work in spite of limitations in availability of time, space and facilities.

Table 3.4.1(1) Research Publications in past 5 years, beneficial to Society, Industry and of Regional/ National importance.

Type	Topics	No. of Papers
Total Research papers	All topics	223
Beneficial to society	There are various studies beneficial to society such as study of Endophytic fungi, Phytochemistry for drug development, Plant tissue culture, Biological control, Fungi for composting, landscaping, studies on cancer, drug detection e.g. Diclophenac, Chitosan, Pharma preparations, weedicide, electrical magnetism studies, gastrophysics – food security, Buddha’s teachings and environmental problems, management of household waste, butterfly garden, ecotourism, birds of Thane creek, sea shore inter tidal fauna, home remedies of fruits, Management of creeks and estuaries, study of flora and fauna.	47
Industry	Some of the research publications have industrial applications as indicated below- extraction of antimicrobial substances , Plant tissue culture, Phytochemistry to get medicinal substances (Drug Development) , Chitosan-standardization of extraction and purification, Physical properties of liquid mixtures, Nano film techniques, Extraction of enzymes, Drug testing, Solvent systems, Chromatography techniques, Method for detection of Molybdate, Silver nano particles, Temperature sensors, Lithium Strontium Silicate studies, Ultrasonic sound velocity through liquids.	32
Regional	The regional studies are mainly biodiversity studies, including orchids, Myco flora, Dendrobium, Electromagnetism, Butterfly gardenPhytoplankton, Ecotourism, Macro fauna, fauna in compost pits, floral diversity, fruit remedies, Phytoplankton, molluscs, Heronary, and also pollution studies,	31
National	Many of the studies described in beneficial to society and Industry are of National and in some cases International importance. Some themes are Drug standardization, Drug development. Chitosan studies,Nano films, seperation of metals, Enzyme extractions, Environmental studies, Taxonomic studies.	50

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

Yes. College is publishing e-journal “JBNB” from the year 2012-13. As per the policy, ISSN number will be obtained after completing 3 successful publications. The journal publishes the research papers, article etc. by students, researchers, and teachers.

Publication policy: In the journal along with the other publication, the research papers of the staff, students and past students of the college are published on priority basis. The research papers / article etc. are peer reviewed and only those which are of good standard are published.

Also BNBCS publishes the Proceedings of Conferences / Seminars organised by the institution. Following is the list of Proceedings published by the institution after second accreditation.

Table 3.4.2(1) Details of Publications of proceedings.

Sr No	Year	Name of Proceeding	Subject
1	2010-2011	Intelligent System	IT
2	2011- 12	i. Avenues on Scientific Research Proposal Grants	Research Committee
3		ii. Biotechnology in Diagnostics	Biotechnology
4	2012 - 13	Phytochemistry : Recent Trends and Challenges 978-81-923628-0-9	Chemistry
5	2013 - 14	Biodiversity : Status and Challenges in Conservation FAVEO 2013 978-81-923628-1-6	Zoology / EVS
6	2014 - 15	New and Emerging Trends in Bioinformatics and Taxonomy ‘NETBT 2015’ 978-81-923628-2-3	Botany

3.4.3 Give details of publications by the faculty and students:

Department	Number of papers published in International Journals	Number of papers published in National Journals	Number of papers in conference presented /published in proceedings	Number of staff involved in research	Average Number of papers published per faculty
Zoology	22	5	18	5	9.0
Botany	30	5	15	5	10.0
Chemistry	60	7	24	5	18.2
Physics	21	-	6	5	4.2
Mathematics	5	-	3	2	4.0
Statistics	7	-	4	3	3.67
Biotechnology / Microbiology	1	-	8	4	2.25
Biochemistry	-	-	3	1	3.0
IT / Comp Sc.	1	-	3	4	1.0
EVS			2	2	1.0
Foundation Course	-	1	3	1	4
Library	1		5	1	6
Other (Gym+)	-	1	2	2	1.5
Total	148	19	56	39	5.71

The projects done by the students under Science Square are compiled in a booklet.

Table 3.4.3(2) Students participation in Mini research projects

Year	2010 – 2011	2011 – 2012	2012 – 2013	2013 – 2014
No. of students Participated	49	26	23	60
No. Of Projects completed	9	16	9	23

3.4.4 Provide details (if any) of

* **Research awards received by the faculty**

Awards received for presenting papers at Conferences

➤ **By Faculty**

- i. Anita Goswami-Giri presented Paper and awarded best paper entitled (2011) “Electrochemical measurement of immobilized onion leaves PPO in agar-*Abelmoschus esculentus* gum.” at **International conference** on Biosensing Technology held at Amsterdam Netherlands organized by ELSEVIOR
- ii. Anita S. Goswami-Giri and Vinda Manjramkar Presented and awarded best paper entitled,” *Hazards and Policies for Monitoring Polymer Industries*. National **conference** held at Dyansadhana College, Thane on 24th January 2015. On Environmental Issues and Benefits with special Reference to Polymer Industries.
- iii. Ms. Sangita Meshram presented a paper titled “Vipassan Meditation & community development” and got award “Best paper presentation” in International conference, held at Bangkok, Thailand on 3rd-8th Nov. 2014.

➤ **By Students**

- i. Sindhu Tayade: Awarded IIIrd prize -Paper presented entitled, Behavior of *Solanum xanthocarpum* leaves alkaloids due to surfactants at National Conference Saraswati Engineering College, Kharghar Thane dated 3rd to 4th March 2010.
- ii. Neha Sawant : awarded IInd prize, Paper presented entitled, “Congenial practices for greener and safer world” at International Conference on “Ecoevolution.” held at Aurangabad. 19-20 Feb.2011 and published in journal Bionano frontier.
- iii. Rashmi Sharma: Awarded IInd prize, A paper presented -, “Significance of pesticides.” at National Conference on “Environmental overviews and issues.” held at Department of Chemistry, Bhausaheb Nene College Pen. December 15th, 2014.

*** Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**

The staff members have received recognition in form of

1. Becoming member of Editorial Board/ Advisory Board of Research Journals
2. Life Membership/Membership of Journal or research body.
3. Appointment to review research paper for international journal
4. Invitation by National or International organization as expert.
5. Invitation as Key note Speaker in International / National conference.

Table 3.4.4(1) List of faculty receiving recognition.

Sr. No.	Details	List of Faculty
1	In the editorial Board of different research journals	Dr. (Mrs.) M. K. Pejaver Dr. (Mrs.) M. S. Mulgaonkar Dr. (Mrs.) N. N. Patil Dr. R. P. Athalye Dr. M. N. Nyayate Dr. J. M. Jamdhade Dr. Mozes Kolet Dr. M. V. Rathnam Dr. (Mrs.) Anita Goswami Giri
2	Membership / Life Membership	Dr. (Mrs.) M. K. Pejaver Dr. R. P. Athalye, Dr. (Mrs.) M. S. Mulgaonkar Dr. (Mrs.) N.N. Patil Dr. (Mrs.) Anita Goswami Giri
3	Honor	Dr. (Mrs.) M. S. Mulgaonkar : Orchids International society
4	Invited to review Research papers for International journal	Dr. R. P. Athalye Dr. M. V. Ratnam Dr. (Mrs.) Anita Goswami Giri
5	Invited as Expert by National/International bodies	Dr. (Mrs.) M. K. Pejaver Dr. R. P. Athalye Dr. M. N. Nyayate.
6	Invited as Key note Speaker in International/National conference	Dr. (Mrs.) M. K. Pejaver

*** Incentives given to faculty for receiving state, national and international recognitions for research contributions.**

The individuals who receive awards are felicitated during annual prize distribution ceremony. Their achievements are acknowledged in college magazine –“Sanyuja” and in annual report of the college which is sent to the University.

3.5 Consultancy:

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

We have not yet established the institute-industry interface, but we are in the process of finalizing two collaboration one with TERI regarding study on the topic Energy conservation / Environment related issues and Nutrition , the other is with SACON-for study related to topics Biodiversity / Birds / wetlands.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

Management is proactive and encourages the staff to go for consultancy projects. The college facilities are made available for consultancy work. College also extends the cooperation in making availability of technical staff and Admin staff.

Till now publicity about expertise was basically by personal contacts and now we have added it on our website.

BNBCS is conducting course on Research methodology, Data Analysis techniques and basics of computer which is mandatory course for Ph.D. students of life science subjects. Many research scholars from other Institutes join this course.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The staff is provided all required equipments chemicals, laboratory facilities and library / internet facilities. They are given 50% of the consultancy fees after paying remuneration to the supporting staff.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

Table 3.5.4 Consultancy services provided by the institution

Sr. No	Name of the faculty	Areas of consultancy	Income generated in Rs.
1	Dr. R. P. Athalye & Dr. N.N.Patil	Consultancy for Thane Municipal Corporation project to study Effectiveness of bioremediation treatment given to lakes Ambe Ghosale.	9700/-
2	Dr. R. P. Athalye	For Benthos analysis for the project by Central Institute of Fishery Education, Mumbai "Baseline riverine radioecology and biodiversity studies around proposed NPP site MP Jabalpur" 13 th Feb. 2012 onwards.	3500/-
3	Dr. Kalpita Muley & Ms. Jayashree Pawar	Babasaheb Ambedker Technical University, Lonere, Raigad for laboratory setting	16,000/-

4	Dr. Kalpita Muley & Ms. Jayashree Pawar	Babasaheb Ambedker Technical University, Lonere, Raigad for training of laboratory techniques	16,000/-
5	Dr. P. N. Kurve (5 M. Sc. students from EVS Dept.)	Eco Foot Forward for biodiversity assessment projects	8000/-
6	Dr. P. N. Kurve, Ms. Sheetal Pachpande & Ms. Gayatri Oak	Dilip Shenai (Ecology and Biodiversity Consultant) Consultation for analysis of Sediment and water samples	25000/-
7	Dr. M. K. Pejaver	NGO Hariyali and Jidnyasa	Honorary work
8	Dr. R. P. Athalye	For research project funded by MMR-EIS, Mumbai, "Evaluation of Ecological Quality Index (EQI) of Rainwater Harvesting Pond to define its health and uses."	Honorary work
9	Dr. R. P. Athalye & Mr. S. D. Rathod	Provided consultancy for Microphotography for Dr. Anita S. Jadhav from ICLE's M. Jhunjhunwala College	Honorary work
Total			78200/-

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

Management has given guidelines regarding consultancy. 50% of the amount is given to the staff participating in consultancy, 15% for technical staff of the department, 15% for administrative office staff, 20% to the college for using college infrastructure and resources available in college.

3.6 Extension Activities and Institutional Social Responsibility (ISR):

3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

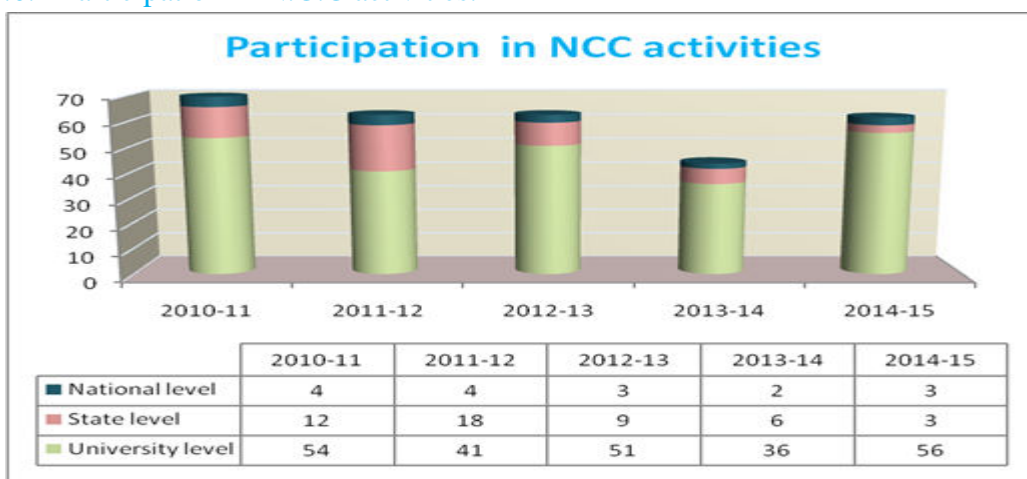
- For last twenty five years, our NSS and NCC units are working as volunteers for plantation and sapling preparation for NGO Hariyalli.
- Our NSS/NCC students participate in many programmes of the Government. Department such as Polio immunization., rallies to create social awareness on issues like Public Health and Hygiene, HIV-AIDS, Disaster management, Environment and Gender Equality.

- Students also help Police department to control traffic and guide people during Ganapati immersion.
- NSS camp is organized without disturbing academic schedule. NSS camp is usually organized during Christmas vacation. For last five years camp is arranged at Mann Asram Shala, Vikramgad which is the residential school for tribal children. Various activities are conducted for these children. Details are given in table 3.6.8(1). 31st December is celebrated with tribal children to inculcate simplicity and discipline in our volunteers.
- Our NSS/DLLE students are rendering their services to the centre “Sobati –the institute for blind and mentally challenged children.”
- Teachers and our TY and PG students through “College school complex” conduct orientation sessions about science subjects by conducting experiments in the subjects like Botany, Physics, Chemistry, Biotechnology and Zoology for various school children from Thane city. Our teachers guide school children to complete the projects for Children Science Congress.

3.6.2 What is the Institutional mechanism to track students’ involvement in various social movements / activities which promote citizenship roles?

- NCC- Through NCC we promote the students to participate in the various social activities like Tree plantation, Blood donation, awareness drives about AIDS, Cancer, Female infanticide awareness, Pulse Polio immunization, Anti Drug awareness, Disasters Relief fund, celebration of Independence Day and Republic Day, etc. The cadets also participate in the camps such as Annual Training Camp, Thal Sainik Camp, National Integration Camp, Trekking, other adventure camps and Republic day camp at New Delhi etc. Through these camps they learn various aspects of citizenship, adventure and National integration.

Fig 3.6.2 Participation in N.C.C activities.



- NSS unit. : Every year 200 students are enrolled for NSS and all of them participate in the activities conducted by N.S.S.at area based, college and University level.

Table : 3.6.2.(1) NSS Activities of last five years

Activities	2010-11	2011-12	2012-13	2013-14	2014-15
Social Awareness	4	11	7	4	8
Health	3	4	4	3	5
Environment conservation	3	6	3	7	4
Personality development, leadership training	4	2	4	4	2
Youth Festivals, Melava, and camps	1	1	2	2	1
Safety and Disaster management	2	2	5	2	6
Cultural event participation	2	1	1	2	2
Pre State Republic day and National Republic day camp	--	-	1	1	1
Development of NSS garden in the campus	-	-	-	1	1
Selling of Rakhis –Sobati	-	-	-	1	1
Residential Camp (10 days)	1	1	1	1	1
TOTAL Activities	20	28	28	28	32

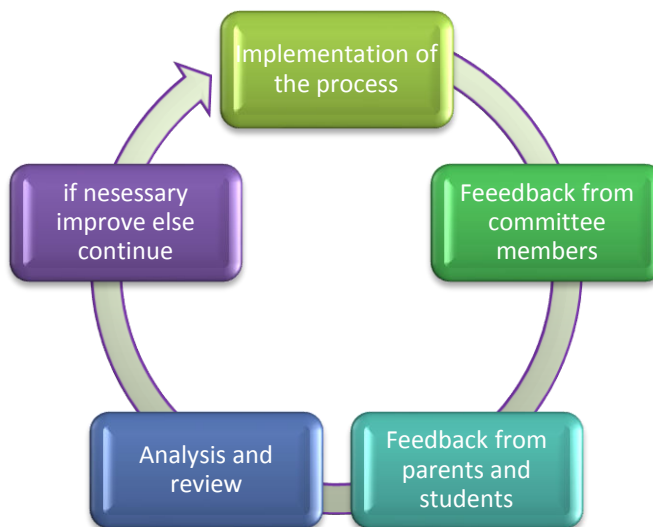
- DLLE activity was introduced from the year 2012-13 to promote the students to participate in the various projects like APY(Annapurna Yojana),SWS(status of woman in society), CP career project are mainly opted by students .Essay writing is compulsory for all the students. Out of 40 topics that are about woman related issues, pollution problems etc.; a student has to choose one for essay writing. This is for enhancing the general social observations, writing, thinking skill etc. Students participate in UDAAN, an intercollegiate festival to present the skit on various problems of society and also in poster competition. The students are made to learn entrepreneur skills and lectures for the same are arranged.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

- Feedback forms from students are collected for overall performance. Feedback is analyzed by IQAC and effective measures are taken for improvement.
- Advisory Committee meeting is held on yearly basis.

- Parent-Teacher meets enable two way interaction and communication of students' performance and institutional performance respectively.
- The students give their suggestions through the suggestion box. They also express through student council members or directly meet the Principals or other staff member.

Fig 3.6.3(1) Process of considering stakeholder's suggestions for improvement of overall performance.



3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

The extension /outreach activities are carried out under various heads namely NSS, NCC, DLLE and college- school Complex. In the beginning of the academic year the meetings with the coordinators of the various extension and outreach programs are held to plan the activities for the year. Various activities under these programs are discussed in 3.6.3 hence in the table below, mainly the Impact of the activities are discussed.

NSS budget :-

Year	Budget	Amount Actually Spend	Number of students participated	Impact of the activity on overall development
NSS				
2010-11	50000	45140	200	Leadership qualities, team building, concern for the society, concern for environment, self-realization, skill development, social stigmas and their study, disaster management, discipline, health concern
2011-12	50000	56673	200	
2012-13	50000	55208	200	
2013-14	50000	52342	200	
2014-15	50000	53000	200	



NSS Special Camp Activities				
2010-11	45000	45136	70	Managing adverse and challenging conditions, concern for the society, concern for environment, self-realization, tribal culture, Ashramshala management, group living, mentoring, care taking and responsibilities sharing.
2011-12	45000	53744	76	
2012-13	45000	71138	72	
2013-14	45000	82988	100	
2014-15	45000	62000	100	
NCC				
2010-11	On actual basis	1520		Patriotism, courage and bravery, Unity, Discipline, physical and mental fitness, Nation building, survival in all circumstances. Ability to obey the seniors and command the juniors.
2011-12		1598		
2012-13		1442		
2013-14		13946		
DLLE				
2012-13	12000/-	7963/-	120	Leadership qualities, team building, concern for the society, self-realization, entrepreneur skills
2013-14	10400	10067/-	104	
2014-15	8700/-	7000	87	
College-School Complex				
2010 - 2014	Infrastructure like computers and lab equipments, chemicals are used from college and separate budget is allocated.		Every year around 20-25 students along with teachers participate in this activity	Leadership qualities, team building, concern for the society, self-realization, Ability to deal with juniors, Revision of fundamentals of the subject.

Certain activities organized are –

- Awareness Rallies to spread information on Eradication of Aids, Drug abuse; Pollution control; Save Girl Child , Woman empowerment, Thermacol reduction demos at malls, Voters awareness campaign, Brain Intelligence Test awareness, Food adulterant testing awareness, Organ donation awareness campaign, Run for unity.
- Traffic Control Training, National integration rally.
- Participation in activities: - Road safety campaign, Cyber safety awareness, Consumer empowerment, Disaster preparedness workshop, Swacchata Abhiyan, Andhashraddha Nirmoolan campaign, Tree plantation, Sapling preparation, Post plantation care, Blood donation, Smart investor programme.

- NSS camps in rural areas:– Mann Ashram shala-Vikramgad activities conducted at Camp site includes- Shramdan, drawing, elocution, essay, classroom teaching, science practical, sports, cultural, career guidance lectures, street play.
- Our NSS/DLLE students are rendering their services to the centre “Sobati –the institute for blind and mentally challenged children.
- Development of NSS Garden at college campus.
- College School - Complex programme: Under this scheme we guide various schools to prepare their science projects for the Children Science Congress competitions and to some extent satisfy the thirst of school children to gain more knowledge. Our teachers guide the school students for Jr. & Sr. Young Scientist Examinations conducted by Homi Bhabha Centre. Many of these students receive prizes and medals at State & National levels. BNBCS students actively participate in helping these youngsters.
- 'Jagar Janivancha' is an activity introduced in all college / Universities by the State Government of Maharashtra. The main aim of the activity is to make the student aware about the current social problems, gender equality, respectful treatment to woman and make them confident , self radiant fearless (Bold) so that they will strive for equality and in justice and work hard for the bright future of the nation. Various activities are organized under Jagar Janivancha. They include Elocution, Essay, Poetry and story writing competitions on various subjects related to social issues, quiz competition, poster competition, slogan competition, Lecture on disaster management, superstition, cancer awareness, balanced dieting, street shows female foeticide, crime due to one sided love (unilateral love), addiction, walkathon on AIDS, Nirbhaya, sensitization drives related to Gandhian thoughts, anti dowry movement, celebrating Marathi, Hindi, Sanskrit days etc.

The college has done the activities so effectively that it has won prizes mentioned in 3.6.10

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

- BNBCS is very sensitive to societal needs. Teachers are the role models for the students. Many of our staff members are involved in social activities. They inculcate selfless attitude among the students.
- The Institution promotes all such activities by sanctioning leave, flexible timings, money for travel and other organizational expenses. The Institution extends all infrastructural support for all such activities.
- During the Inaugural address students are motivated to join extension activities by explaining its significance and advantages.
- The motto of NSS is “Not Me But You” which is widely conveyed.



- The NCC cadets motivate the fresher's to join NCC by their motto of "Unity and Discipline" Past NCC cadets interact with newcomers. They also promote the spirit of Nationalism. On Republic Day medals and prizes are awarded to NCC cadets like best cadet.
- Special lectures and seminars are organized on socially relevant issues.
- Students taking up NCC/NSS/DLLE activity are awarded 10 grace marks.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

Social surveys, research or extension work undertaken by the college to ensure social justice

Sr. No.	Event	Target group	Activity conducted by
1	Status of women in the society annually	Women	DLLE
2	Hemoglobin survey conducted during blood donation camp.	College girls	NSS

- Through N.S.S. various activities like tree plantation, blood donation, and social awareness rallies, participation as volunteers in Ganapati immersion programme, water conservation schemes along with NGO Hariyali are organized. These programmes make them capable to contribute to the National development. The motto of NSS is "Not Me But You" which is widely conveyed.
- Our NSS/DLLE students are rendering their services to the centre "Sobati –the institute for blind and mentally challenged children."
- College School - Complex programme: Under this scheme we guide various schools to prepare their science projects for the Children Science Congress competitions and to some extent satisfy the thirst of school children to gain more knowledge. We guide the school students for Jr.& Sr. Young Scientist Examinations conducted by Homi Bhabha Centre. Many of these students receive prizes and medals at State & National levels. BNBCS students actively participate in helping these youngsters.
- Research in the fields of Environmental Biodiversity, Green Chemistry and Plant Biotechnology that are going on in various departments, has contributed to National development.



3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

The extension activities give field level exposure to the students and provide opportunities to interact with society. The extension and outreach activities of the college prove valuable means of multi-dimensional personality.

- To inculcate social awareness and moral values in the students, topics like AIDS awareness, problems related to drug abuse, senior citizens, dowry, child labour, environmental issues etc. are incorporated in the Foundation Course Syllabus of F.Y and S.Y classes.
- Our NSS volunteers have worked as Traffic Wardens and assisted traffic police in monitoring the traffic at various traffic islands in Thane city. Traffic awareness campaign was conducted at four different places for two days where-in details regarding traffic rules, precautions to be taken while driving a vehicle, PUC, Insurance, vehicle tax, registration, and different acts related to the above were given to citizens of Thane.
- Under DLLE the various projects are undertaken like Survey of Women Status, Annapoorna Yojana Project, National Institute of Open Schooling, etc. these programs help students in all round personality development and improve their communication skills, leadership qualities, etc.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

In accordance with our mission to create socially aware students, many of our staff members along with our students are actively involved in various social activities. Various NSS and NCC activities held at BNBCS inculcate the sense of societal responsibilities among students. From the year 2010-11 every year NSS has been organizing seven days residential camp at Mann Ashram Shala, Vikramgad. During the camp many activities are undertaken to train the students from ashram Shala.

Table.3.6.8(1): NSS activities at Mann Ashram Shala:

Year	Activities conducted at Mann Ashram shala	Number of School Children benefited
2010-11	Shramdan, Literary events , Cultural events, Sports Fine Arts, Physical exercise, Drill	450
2011-12	Shramdan , Literary events ,Cultural events, Sports Fine Arts, Physical exercise	450
2012-13	Shramdan, Literary events , Cultural events, Sports Fine Arts, Physical exercise, Health and hygiene	500
2013-14	Shramdan, Literary events , Cultural events, Sports Fine Arts, Medical camp, Note books distribution Yoga, Physics practical, Andhashraddha Nirmoolan demo (ANIS)	550
2014-15	Shramdan, Literary events , Cultural events, Sports Fine Arts, Career guidance, Joy of giving, Akshar Ganesh, Yoga	600

NSS Volunteers render their Shramadan to develop :

- 1.Fencing for school premises
2. Kitchen Garden
3. Leveling Parking Area
4. Leveling Volleyball and Badminton Court
5. Cultural Stage Extension
6. Three Bio-compost Pits
7. Approach road and Steps towards Deherje River

In addition to this, 300 plantations were done.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

Constructive relationships forged by BNBCS in various capacities for outreach and extension

activities are given in table below.

Table No.3.6.9 (1) Outreach programme and extension activities.

Sr. No.	(Agency) GO/NGO	Activities
1	Hariyali	Saplings preparation, tree plantation, post plantation care
2	Thane Forest Office	Saplings preparation, tree plantation, post plantation care
3	HOPE	Biodiversity Survey Environmental awareness programmes on school through poster library Environmental awareness Lecture series –one lecture per month
3	SOBATI	Selling of Rakhis prepared by Mentally and physically challenged kids
4	Kartavya Foundation (Project Tiranga)	National Integration Rally
5	Central Railway	SwacchtaAbhiyan
6	Harbour Railway	SwacchtaAbhiyan
7	Thane Collectorate Office	Voters awareness campaign, run for unity,
8	Sion Blood Bank	Blood donation camp
9	Bloodline Blood Bank	Blood donation camp
10	Anviksha Blood Bank	Blood donation camp
11	Thane Civil Hospital	HIV / AIDS sensitization campaign
12	Thane Civil Hospital Blood Bank	Blood donation camp
13	AAhan Foundation (Responsible Netism)	Cyber safety campaign
14	Sakal Group	Personality development programme
15	Lions Club of Kanjurmarg	Blood donation camp
16	Shourya Foundation	Blood donation camp
17	TERI	Environment conservation Energy conservation
18	DEW	Water Conservation
19	Sarvodaya Mandal	Hiroshima day, communal harmony
20	Social Foundation Trust	Social issues
21	Dr. M.L. Dhawale	Special camp at Maan Ashramshala

	Cheritable Trust	
22	Maan Ashramshala	Special camp
23	HOPE	Preparation of Posters on the topics related to environment related issues and biodiversity for school children.
24	PCRA	Save Energy / Electricity projects
25	BSE	Smart investment awareness programme
26	NSE	Smart investment awareness programme
27	BIT	Motivational programs and personality development
28	MHW	Motivational programs and personality development
29	CGSI	Consumer awareness programme, Smart investment awareness programme
30	Enviro-Vigil	Kagadshilp, e-waste, environment conservation
31	YuvakBiradari	Ek Sur Ek Taal
32	VACHA	Gender sensitization programme
33	ANIS	Andhashraddha Nirmoolan
34	FORTIS	CPR Training, cancer awareness programme
35	RADHEE	First AID training
36	CPSC	Consumer awareness programme
37	RTO, Thane	Road safety
38	Hirkani	Woman empowerment
39	Jidnyasa	Thermocol reduction programme
40	AmbikaYogKutir	Yoga

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

Awards and recognitions received by BNBCS for services in the area of extension activities are as follows:-

- ✚ A trophy and cash prize of Rs. 50,000 (second prize at district level) from Government of Maharashtra for 'Jagar Janivancha' project, activities for Gender sensitization among stakeholders of the institution (2012-13)
- ✚ A trophy and cash prize of Rs. 1,00,000 (First prize at district level) from Government of Maharashtra for 'Jagar Janivancha' project, activities for Gender sensitization among stakeholders of the institution (2013-14)
- ✚ Our college received 1st prize (Trophy) in UDAAN for year 2012-13 (UDAAN is

intercollegiate presentations of skits related to social problems)

3.7 Collaboration:

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

The college has been collaborating with different research organizations mainly to organize conferences, workshops and seminars. This leads to interaction and exchange of thoughts between staff and students.

Table 3.7.1(1) collaboration for research activities.

Sr. No.	Event	Collaborative Institution	Department	Date	Topic
1.	National Seminar	ISST & Oriental	Research Committee & Chemistry	18 th Aug 2011	Avenues in Research Proposal Grant
2.	National Seminar	ISST & TDM Laboratory	Chemistry Research Committee	14 th -15 th Dec 2012	Phytochemistry "Recent trends and Challenges"
3.	National conference	SACON, WWF	Zoology EVS	29 th -30 th Nov- 2013	'FAVEO' Biodiversity-Status And Challenges In Conservation
4.	National conference	Association for Plant taxonomy, Deheradun and Blatter Herberium St Xavier college Mumbai and NABARD	Botany	14 th - 15 th Jan 2015	New and emerging techniques in bioinformatics and Taxonomy-NETBT
5	National conference	SACON, WWF	Zoology EVS		

- ✓ Research students use the facilities of the Institutes like IIT, Mumbai, TIFR, BARC, Institute of Science, CIFE and ACTREC, Diya Laboratory, Airoli.
- ✓ Undergraduate students of Biochemistry and Biotechnology take the summer training in the Institute like ACTREC.
- ✓ NSS activities are conducted in collaborations with GO's and NGO's details in table No. 3.6.9
- ✓ For PG diploma courses the experts from Industries are invited to take lectures.
- ✓ For Hospital Administration course practical training is given at Jupiter Hospital, Thane.

3.7.2 Provide details on the MOU's / collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

The college has a collaborative arrangement with Shri Ambica Yog Kutir, Thane for providing Yoga training for our students and staff. Every year about five hundred students and few staff take yoga training.

There are collaborative arrangement of our NSS unit with different GO like TMC , Civil Hospital Thane and NGOs such as HOPE ,HARIYALI, ENVIROVIGIL, etc .Through these collaborations, services useful to society are effectively carried out.

College has signed MOU with TERI, HOPE.

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.

Various Institutes /Industries like TCS, L&T, Wipro, Infosys, arrange campus interviews for students to get placements. In last four years 185 students are placed in various offices and industries through campus placement.

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

Yearly nearly eighty to hundred guests visit BNBCS at various events like conference, departmental club functions, guests lecture, workshops, annual socials etc.

Table 3.7.4 (1): The lists of Eminent persons visited our college.

Sr. No.	Name of the Eminent personality	Designation
Avenues on scientific research proposal grants, 18th August 2011		
1	Dr. Rajpal Hande	Director, BCUD, University of Mumbai, Mumbai.
2	Dr. V. L. Maheshwarib	Director, School of life Sciences, NMU, Jalgoan.
3	Dr. Vinda Khole	Scientist F, NIRRH (ICMR) Mumbai.
4	Dr. A. K. Srivastava	Professor in Analytical Chemistry, Department of Chemistry, University of Mumbai, Mumbai.
5	Dr. S. K. Deshmukh	Director, Nicholus Piramal, Mumbai.
National Conference on Phytochemistry: Recent Trends and challenges, 14th - 15th December 2012.		
6	Dr. T. A. More	Vice - Chancellor, Krushi Vidyapeeth, Rahuri, Ahmednagar. (MS).



7	Dr. R. T. Sane	Ex - Principal Ruia College, Mumbai
8	Dr. (Mrs.) Vidya Gupta	Chief Scientist, Biochemical Division; NCL, Pune.
9	Dr. Ashok Giri	Sr. Scientist, Biochemical Division, NCL, Pune.
10	Dr.(Mrs.) Debjani Dasgupta	Director, Department of Biotechnology and Bioinformatics Padmashree D. Y. Patil Vidyapeeth, Nerul.
11	Dr. K.R. Gawai	Professor and Head in Biochemistry, Department of Chemistry, University of Pune, Pune.
12	Dr. A.V. Karnik	Professor in Organic Chemistry, Department of Chemistry, University of Mumbai, Mumbai.
13	Dr. D. G. Naik	Scientist E Agharkar Research Institute, Pune
14	Dr. Dimple Datta,	Scientific Officer, BARC Mumbai
15	Dr . Shashi Menon	Director, TDM Laboratory, Sion, Mumbai
16	Dr. Govindwar	Professor in Biochemistry, University of Kolhapur, Kolhapur.
17	Dr. Atul Bedekar	Director, Education & Research in Chemistry, Ayurveda & Allied Sciences, Prin. B.V. Bhide Foundation, Pune.
18	Dr. P. M. Dongre	Head, Department of Biophysics University of Mumbai, Mumbai.
19	Dr. R. S. Pandit	Professor, Department of Zoology, University of Pune, Pune
20	Dr. S. B. Daharp	Chairman, Board of Studies in Chemistry, University of Mumbai, Mumbai
21	Dr. Dnyaneshwar Waghchoure	Director, Ashwamedh Laboratory, Ahmednagar.
22	Dr. Balaprasad Ankamwar	Professor, Bio-Inspired Materials Science Laboratory, Department of Chemistry, University of Pune, Pune.
To inaugurate various club / Certificate course / Guest lecture		
23	Dr. Dhage Shivani	Dy, Director , NEERI 2013
24	Dr. Jean Cadet	Director, Atomic energy. To give lecture on Oxidatively generated and photo-induced damage to DNA. 23 rd January, 2013
25	Mr.Vidyadhar Walavalkar	V.P.M. Polytechnique College, Thane on 6 th August 2014.



26	Dr. Nupur Mehrotra	Co-ordinator Of Biochemistry, Mithibai College, Thane, 7 th August to 9 th August, 2014.
27	Dr. Nitin Desai	Dean, Faculty of Science, Dr. D. Y. Patil Deemed University 2011-2012.
28	Dr. Jeewan Singh Jalal	Scientist "C" Botanical Survey of India Pune 2014 - 15
State level workshop on "Role of IQAC in Quality Enhancement"		
29	Dr. B.S. Madhukar	Deputy Advisor, NAAC Bangalore
30	Dr. M.R. Kurup	Secretary, KET , Former Principal of Vaze Kelkar College, Mulund
31	Mr. Venkat Ramani	Former Registrar, University of Mumbai
FAVEO Conference 2013-14		
32	Dr. Raju Kasambe	Project Manager , IBA Programme ,Bombay Natural History society, Mumbai
33	Mr. Goldin Quadros	SACON, Coimatore
34	Dr. Narsinh L. Thakur	CSIR – National Institute of Oceanography.
35	Dr. Baban Ingole	Scientist E CSIR – National Institute of Oceanography
National Conference on New and Emerging Trends and Taxonomy 2014-2015		
36	Dr. Santosh Kumar Agarwal	Associate Professor and Head D. B. S. P. G. College, Dehradun
37	Dr. Pattanathu, K.S.M. Rahman	Biotechnology Programme Leader, School of Science and Engineering, Teesside University UK.
38	Dr. Anil Kumar Goel	Chief Scientist and Head, Botanical Garden, NBRI, Lucknow.
39	Dr. Abhishek Baghela	Scientist, National Fungal Culture Collection, MACS, Agharkar Research Institute, Pune, India
40	Dr. B.F. Rodrigues	Professor and Head, Dept. of Botany, Goa University, Goa.
41	Dr. Sanjay Deshmukh	Professor, Dept. of Life Sciences, University of Mumbai.
42	Dr. M. C. Srinivasan	Scientist (Retd.) National Chemical Laboratory, Pune.
43	Dr. M. R. Almeida	Retired Head Department of Botany, St. Xaviers College ,Mumbai
44	Dr. B. B. Chattoo	Founder Vice chancellor, Shri Mata Vaishno Devi University Jammu.



45	Dr. Ajit Datar	Advisor, Shimadzu Corporation Pvt. Ltd.
46	Dr. Supriya Bhalerao	Senior Research officer, Nair hospital Mumbai.
47	Dr. Bhakti Pathak	Scientist C, Structural Biology, NIRRH, Mumbai.
48	Dr. Ashes Ganguli	Director, Cryogen Instruments India Pvt. Ltd.
49	Dr. Anu Ghosh	Scientific Officer H, BARC, Mumbai.
50	Dr. K. P. Mishra	Vice chancellor Nehru Gram Bharati University, Allahabad
51	Dr. S. V. Chiplunkar	Head, Immunology, PI, ACTREC Kharghar.
52	Mr. Ram Gulwady	Founder SANMOUR pharma Pvt. Ltd.
53	Dr. Disha Mody	Former Research Associate, St. Jude Children's Research Hospital, Memphis, Tennessee, USA
54	Dr. Abhishek Mule	Research Scientist, ICT, Mumbai.
55	Dr. Prashant Khadke	Product Manager (Asia Pacific), Bio-Rad Laboratories.

College organizes at least one National conference every year.

Table 3.7.4(2) Conferences and seminars arranged by the college in last five years

Year	Name of the conference	Department	Number of Participants
National			
2010-11	Intelligent System	Information Technology and Computer Science	375
2011- 12	Avenues on Scientific Research Proposal Grants	Research Committee	85
2011- 12	Evolving of Scientific terminology in Environmental Science in Regional Language	Botany	110
2011- 12	Biotechnology in Diagnostics	Biotechnology & Microbiology	185
2012- 13	Phytochemistry : Recent Trends and Challenges	Chemistry	215
2012- 13	FUTECH	Information Technology and Computer Science	360
2013- 14	Biodiversity : Status and Challenges in Conservation FAVEO 2013	Zoology & Environmental Science	220
2014- 15	New and Emerging Trends in Bioinformatics and Taxonomy 'NETBT 2015	Botany	195

State Level			
2012– 13	Recent Research Trends in Mathematics	Mathematics	110
2013- 14	Role of IQAC	IQAC	85

3.7.5 How many of the linkages/collaborations have actually resulted in formal MOU's and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated –

College has signed MOU with Teri and HOPE, and in the process of collaborating with SACON and

Table3.7.5(1) Linkage/ collaboration established along with the activities

Activity	Collaborating Institute/Industry
Yoga training	Ambika Yog Kutir, Thane
Internship/ On-the-job training	ACTREC, Jupiter Hospital
Summer placement	ACTREC
Research To use the facilities	IIT, TIFR, Institute of Science, CIFE.
Consultancy	TMC, NIO, HOPE, HARIYALI
Extension activities NCC/NSS	Consumer Guidance Society of India Maharashtra State AIDS control Society
Self Defense/ disaster Management	Thane Police, TMC Disaster Management Cell
Student Placement	Wipro, TCS, Madhukar chemicals, PCS, Infosys
Biodiversity studies	SACON
School projects	HOPE

Since the college is very near to Station our college is used for conducting various entrance examinations like IIT-GATE, UPSC, MPSC, AIMS etc

VPM has collaboration with TCS for using our infrastructure and computer facility in weekends and holidays for online examinations. It provides opportunity for our technical staff to learn about the details of online examinations and trouble shooting. The incentives as remuneration for technical help.

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations.

The members of the Career and Placement Cell, IQAC, NSS and departmental Heads make systematic effort in planning, establishing and implementing linkages and collaborations with research institutions, corporate, industries trainers, IT sectors Go's and NGO's. Formal correspondence with the prospective institute is done initially. Then a pre-signing meeting is organized with the Principal to discuss the avenues of collaboration. If the collaboration is found beneficial to our students then it is formalized.

Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

I) After second accreditation there considerable improvement on Research activity.

1. There is a significant increase in the number of minor and major research project in past five years.

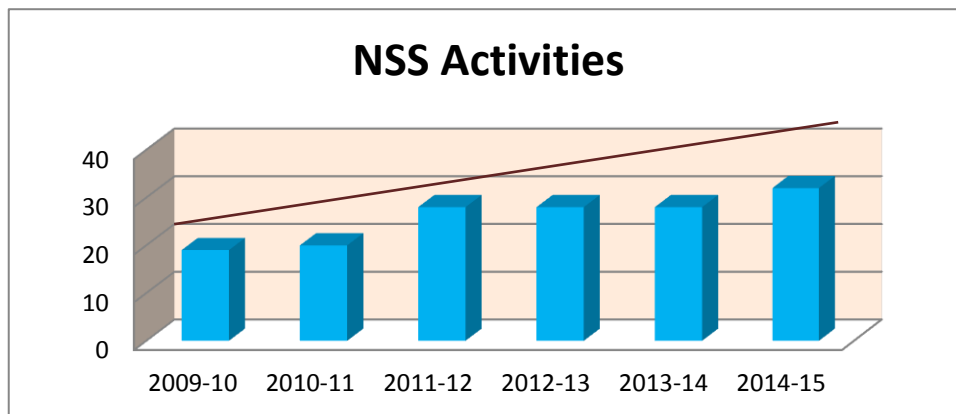
	No. Of Major Projects	No. Of Minor Projects
Previous Data (1 st Accreditation)		
Completed Projects	01	04-UOM
During the period of 2 nd Accreditation Jan 2010		
👍 Completed Projects	01	09- UOM
👍 Ongoing Projects	02	02- UOM
Total	03	11
During the period of 3 rd Accreditation -		
👍 Completed Projects	02	13 UOM
👍 Ongoing Projects	03	02 UOM 04 UGC
Total	05	19

2. Substantial increases in research papers publication.

	Published	Presented	Patents
At the time of 2 nd Accreditation Jan 2010	65	33	Nil
Present data Jan 2015	223	56	03

II) Increase in the number of extension activities.

1. DLLE initiated in the year 2012-13 where nearly 100 students enroll every year.
2. Increase in NSS activities.





Infrastructure is much more important than architecture.
~ Rem Koolhaas



CRITERION IV
INFRASTRUCTURE
AND
LEARNING





CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities:

VPM is always ready to invest in infrastructure development to create a conducive environment. The college has a relatively large campus and adequate infrastructure facilities and resources to conduct the curricular, co-curricular and extra-curricular programs. The infrastructure is used to optimum extent and all the students have an easy access to the available learning resources.

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The management plays a vital role in improving infrastructure as per the requirement

- BNBCS applies to different funding agencies like UGC, DST, and DBT etc. for additional grant-in –aid. College has been upgrading its infrastructure by modernizing laboratories. Sincere efforts are taken to see the cost effectiveness and high quality instruments for effective teaching and learning.
- The HOD/In charge places their requirements which are prioritized by the management and provided. The local managing committee of the college and the college committee meet at least two times a year and these requirements are placed before the committee which are planned and executed.
- Each department has been provided with separate section for HOD, teaching and non teaching staff.
- BNBCS has adequate infrastructural facilities and resources to conduct the curricular, co-curricular and extra-curricular programs.
- The infrastructure is used to optimum extent and all the students have an easy access to the available learning resources.

4.1.2 Detail the facilities available for

- a) Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.
- b) Extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

BNBCS is preferred by staff and students for quality education and convenience of commuting as it is at a walk able distance from railway station and bus stand. The college has modernized almost all its facility to train students to compete nationally and globally.

BNBCS has following facilities available for Curricular, co-curricular and Extra – curricular activities.

Table 4.1.2. (1)

Facility	Description
Curricular Activities	
Class rooms	19 classrooms are available for lectures. Lecture in the college are conducted from 7:00a.m. onwards.
Departments	In each department there are separate rooms for HOD, teaching staff and nonteaching staff.
Well equipped Laboratories-	Botany (2) Biochemistry Biotechnology Chemistry-(4) Computer Sc. EVS. Microbiology Physics(3) Zoology(3) IT(3) Mathematics and Statistics – computer lab
Audio-Visual Aids	Laptops along with LCD projectors are supplied to all departments. Conference room, auditoriums. PlasmaTV at ground floor and in the waiting room outside Principal's cabin for notices and news updates.
Conference hall	Air conditioned having capacity of 30 seats, equipped with one computer and fixed LCD projector
Library – Reading hall	Touch screen computer for OPAC search.Can accommodate about 125 students. Library is open from 9.00 a.m. to 6.30 p.m
Photocopying centre	For Xeroxing Photocopying centre is on the campus.
Co-curricular activities	
Computer facility	In all departments and in library computer facility is made available to students.
Auditorium	Air conditioned auditorium with LCD facility for arranging departmental club activities/ Guest lecturers/ Journal club activities with smart board.
Botanical garden	For study of plants

Extra –curricular activities.	
Amphi Theater	Amphi Theater “Patanjali”
Auditoriums	Six well equipped air conditioned auditoriums; two audiovisual rooms, Amphi Theater and Conference hall on campus all connected with fiber optic cable.
Open Air Theatre	Utilized for the activities like Annual Social gathering. Otherwise this space is used by the students to relax, discuss and study
Yoga centre	‘ Patanjali Yoga Centre’ is used throughout the year to conduct yoga classes
Gymkhana	Number of Chessboards, two tables for table- tennis and four carom boards.
Gymnasium	With equipments like Trade mill, Exercise-bike
Play ground	For outdoor games like Football, Cricket, Kho-Kho, Kabbadi

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/ campus and indicate the existing physical infrastructure and the future planned expansions if any).

The Principal and the management meet frequently and discuss the requirements which are needed in the rapidly changing academic scenario. These are prioritized and the facilities are upgraded in a phased manner.

Facilities developed in last four years:

1. Renovation of physics department.
2. Development of Environmental science department.
3. Renovation of chemistry department- staff room, HOD cabin, Storeroom.
4. Development of Computer lab for Mathematics and Statistics Department.
5. In view of securing the assets and ensuring the safety of the students and staff, the entire premises in under vigilance. CCTV has been installed in the campus, corridors, office, library and laboratories.
6. Installation of TV on the ground floor.



7. Number of Equipments purchased along with cost in the last four years are given in the table 4.1.3(1)

Table 4.1.3(1) Number of Equipments purchased and their cost for last 4 years.

Department	No of Equipment purchased	Funding Source	Amount in Rs.
2010-11			
Physics	26	UGC	2,98,384
Physics	20	College	419059
Botany	2	UGC	217806
Zoology	10	UGC	158665
Chemistry	14	UGC	539091
Biotechnology	2	College	71792
Microbiology	17	College	226031
Total under UGC	52	2427892	
Total under College	40	716882	
2011-12			
Physics	18	UGC	303392
Physics	43	College	257869
Botany	14	UGC	185298
Botany	13	College	129734
Zoology	2	UGC	394206
Chemistry	5	UGC	325069
Microbiology	2	College	18000
Total under UGC	39	1207965	
Total under College	58	405603	
2012-13			
Physics	10	UGC	401760
Physics	28	College	145373
Botany	4	College	1264731
Chemistry	11	UGC	72220
Zoology	8	College	59540
Biotechnology	2	College	85759
Microbiology	25	College	371325
Total under UGC	21	473980	
Total under College	67	1926728	
2013-14			
Physics	38	UGC	116882
Physics	87	College	610448
Botany	12	FIST	299723



Botany	10	College	61875
Chemistry	11	UGC	496667
Zoology	6	UGC Major Research Project	268754
Zoology	12	FIST	361320
Zoology	15	College	113062.5
Biotechnology	3	College	33750
Microbiology	2	College	12375
Total under UGC	55		882303
Total under College	117		831511
Total FIST	24		661043

Building chart is enclosed at the end of Criterion IV

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

Our college is only Science Faculty College and generally differently-abled students do not opt for science courses. In future if we get such students, we are ready to provide required physical facilities.

4.1.5 Give details on the residential facility and various provisions available within them:

Location of BNBCS is easily accessible from railway station and Bus stand hence hostel facility is not essential. There is no hostel or residential facility available on campus.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

- ✓ First aid boxes are available on all major places and are regularly checked and medicines are replaced. So basic medication is provided as and when required.
- ✓ Whenever need arises students, teachers and non teaching staff are referred to Dr. V. V. Bedekar's clinic for medical help.
- ✓ For mental health we have appointed full time counselor
- ✓ Yoga training classes are conducted free of cost.
- ✓ All students of the college are covered under the students' group insurance scheme.
- ✓ Emergency phone numbers are prominently displayed. These include ambulance, fire, police, hospitals and doctors.
- ✓ Informative Guest lectures on health and environmental issues-healthy eating behavior are arranged through staff academy, WDC and NSS.
- ✓ Also college arranges Health check-up camps for teaching & non teaching staff.

4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

We do have some constrains for developing the civil infrastructure as per new laws we are not permitted to build any new structure. Being science college we require larger space for laboratories, hence it is difficult to provide separate room for requirement.

Always our efforts are to utilize existing infrastructure optimum way by cooperation of committees.

Table 4.1.7(1) Infrastructure available for different activities

IQAC	Separate Laptop is provided. For meetings seminar room is used. To keep the records and other work examination room is shared.
Examination cell	Examination room with three computers and printer.
Grievance Redressal unit	Seminar room is used for meetings.
Women's Cell	Botany Head of the department is WDC coordinator , HOD botany room is shared for WDC
Counseling and Career Guidance	Separate room is given for the counselor.
Health Centre	First aid boxes are available on all major places and are regularly checked and medicines are replaced. So basic medication is provided as and when required Whenever need arises students, teachers and non teaching staff are referred to Dr. Bedekar's hospital for medical help
Canteen	Hygienic canteen is on the campus.
Recreational spaces for staff and students	News papers available for reading in the the common staff room. Separate ladies staff room. Each department has separate staff room with computer and internet facility. Ladies room is available for girls. In gymkhana table tennis, carom and chess facilities are available for all.
Safe drinking water facility	Aqua guards are installed in all departments, administrative office, library and staff room. Cooler is kept in the corridor.
Auditorium,	Six auditoriums on the campus connected by optic fiber cable so video conferencing facility is available.
NSS Room	Separate space is allocated for NSS.
NCC room	A common NCC room is built in Management building

4.2 Library as a Learning Resource:

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

Yes. The library has an Advisory Committee. The committee comprises of Principal, Vice Principal, IQAC coordinator, senior teachers from each department and Librarian. This team works as a facilitator and liaison between the readers and the library. The team meets biannually to plan and review the functioning, up gradation and replenishing of the library.

Committee has taken initiative to upgrade the library to make it more students centric and to encourage self-learning among the students and started following programmes :

1. Book Bank Facility for Meritorious Students.
2. Book bank facility for Un-aided department students.
3. Computer with internet facility for all students.
4. Movie Show for students.
5. Information Displays on occasion of various days.
6. Development of Digital Repository.
7. Orientation sessions for staff and students

4.2.2 Provide details of the following:

- * **Total area of the library (in Sq. Mts.):** 353 sq.mts
- * **Total seating capacity:** 125
- * **Working hours:** On Working Day : 9.00 a.m. to 7.00 pm
On Holiday : 9.00 a.m. to 6.00 pm
Before Examination: September and October -& from January to April Library
Kept open on Sunday for Semester end examinations. -
- * **Layout of the library :** Different sections in library are given in following table

Table Layout of the library:-

• New arrivals display	Newly entered books kept for Display for students for 7 days
• Newspaper Counter	Four Newspapers are available for students
• Din Vishesh Display	We display everyday's importance by displaying Information display.
• Stacking area	Regular reference books are kept in stacking area

• Reading area for staff	Small cabin for reading area for staff is available along with one computer.
• Reading area for students	Reading Hall for students capacity of 125 students
• Periodicals Section	Periodicals are displayed in this area, Open Access is given for this section
• OPAC search corner	Touch Screen Computer is made available for OPAC search.
• I.T zone	10 computers are made available for students for Database search Internet access purpose.
• Reference Section	A special reference section is developed for Dictionaries, Encyclopedias, Almanacks, etc.
• Issue Return Section	For regular borrowing of book, Issue -Return counter is kept separate
• I -Card Issue counter	We issue smart card as a I-Card in library.
• Discussion corner	Discussion corner is allotted to the students for any doubts.
• Librarian room	A separate room for librarian.
• wash room/drinking water	Separate wash room for Library staff. Aqaguard is installed .
• Book Processing Area	A separate corner is available for books processing and Barcode pasting.
• Staff Lunch Area	For Library staff to take lunch.

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

- i. Books are purchased which are ordered by our Head of the Departments through requisition slip.
- ii. The library receives books on approval from local vendors on regular basis and amongst that Head of the department of particular subject select the books.
- iii. From the Book Issue counter also we find out highly recommended book by students.
- iv. Staff recommends some books apart from their syllabus for general reading.
- v. Latest publishers' catalogues sent to the departments for selection of book. The selected books from this book catalogue are asked for approval and then books got selected.
- vi. Latest book reviews published in latest journals are brought in notice to the staff members and books are purchased.
- vii. The online catalogue of publishers and E-shopping sites are regularly browsed to get information on latest editions of books for collection Development.
- viii. Our Principal also send pamphlets of newly published books to Librarian, and then it get sanction through the particular departments.

- ix. Requisitions - The central library regularly entertains requisitions for books, journals, magazines and other reading materials from staff and students and acquires them at the earliest.
- x. New Arrivals display - The current titles purchased by the library are regularly displayed for a period of seven days

Table 4.2.3(1) Addition of books for last four years.

Library holdings	2010-11		2011-12		2012-13		2013-14	
	Number	Total Cost in Rs.	Number	Total Cost in Rs.	Number	Total Cost in Rs.	Number	Total Cost in Rs.
Text books	212	23235	140	15700	60	7340	69	8335
Reference Books	1199	77400	686	63629	1280	89200	1033	71135
Books Total	1411	797,25	826	651,94	1340	899,31	1102	719,6
Journals/ Periodicals	38	37650	39	37750	39	37750	41	46500
Magazines	23	15500	25	17300	25	17525	25	17900

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

OPAC	The central library has automated its entire collection, functions and services in a networked environment with Libsuite software. Web OPAC is available
Electronic Resource Management package for e-journals	N-List , J-Stor, ERIC, CMIE, Manupatra . All Data bases are provided by VPM
Library Website	The library webpage is integrated within the College Website. The website gives comprehensive information and coverage on the library profile, rules, policies, services, collection, events, staff and access to WebOPAC and Institutional Repository.



In-house/remote access to e-publications	<p>Our College is an institutional member for the N-LIST programme of the INFLIBNET and DELNET which provide access to E-resources in the form of E-journals, E-books, E-databases and Union Catalogues. The access is provided through institutional user IDs and password login.</p> <p>We also have other e-databases like J-Stor, Manupatra etc, which can be accessible anywhere from college campus.</p>
Library automation	<p>The entire central library functioning is automated with Libsuite Library management software. Sections of the library- cataloguing, circulation, periodical have been computerized. The circulation of books is automated with bar-coding technology. The Web based search of entire library collection is accessible to the users through WEB-OPAC. The article indexing of important periodicals has been computerized and is accessible to the users.</p> <p>We are planning to shift to Koha software, so simultaneously Library circulation is also functions on Koha.</p> <p>To save readers time, Question Papers and Syllabus soft copies have made available on our Institutional Repository.</p> <p>D-Space software is used for Institutional Repository.</p>
Total number of computers for public access	12
Total numbers of printers for public access (Only for staff)	01
Internet band width/ speed	The college has subscribed to a centralized connectivity of Internet through 2 mbps dedicated leased line which is distributed through centralized server gateway and Wi- Fi campus network.
Institutional Repository	Yes-
Content management system for e-learning	Digital Repository
Participation in Resource sharing networks/consortia (like Inflibnet)	Yes, INFLIBNET N-List database access.

4.2.5 Provide details on the following items:

Average number of walk-ins	180-200
Average number of books issued/returned	70-80
Ratio of library books to students enrolled	15:1
Average number of books added during last three years	1089
Average number of login to opac (OPAC) -	15
Average number of login to e-resources	6-8 from library but these can access from any computer from any department. Also personal laptops can get connected.
Number of information literacy trainings organized	Twice in a year
Average number of e-resources downloaded/printed	4-5
Details of “weeding out” of books and other materials	To strengthen and update the library collection and to create storage space for new acquisitions, the library undertakes periodic weeding process. The books and other reading materials are selected for weeding based on their physical condition, arrival of new editions; change of course syllabus and circulation statistics with proper consultation and approval from the subject faculty and Head of the Department. The weeded-out list is placed before the Library committee and the College Governing Council for final approval. Till date, around Four thousand books have been weeded out from the collection.

4.2.6 Give details of the specialized services provided by the library

- * **Reference** – BNBCS is having various Dictionaries, Encyclopedias, Almanacks, Year Books and reference materials like Wealth of India, Hortus Malabaricus, Analytical Chemistry Series, and Organic Chemistry Series etc. Special books on Competitive exams like NET, SET, IAS, IPS , MBA, MCA etc
- * **Reprography** – There is Reprography center in our campus
- * **ILL** - To facilitate the users with diverse collection and meet their needs, the library provides interlibrary borrowing facility with our Sister Institutes in campus.



* **Information deployment and notification (Information Deployment and Notification)**

The library routinely practices display of essential information from user point-of-view on academics, career, employment etc through newspaper clippings and articles published in magazines. Important library notices are periodically circulated in college and also communicated through website-notice boards and E-mails.

We have “Din-Vishesh” and “Environment Vishes” information display corners. In which we celebrate every day with some activity like book exhibition or Wallpaper or Information display on the specialty of that day.

* **Download** - The library has streaming access to Internet with Centralized 2 mbps dedicated leased line though Wi-Fi campus connectivity. We are having 10 computers in Library with internet facility, so students can download the information.

* **Printing** – Printing facility is available only for staff.

* **Reading list/ Bibliography compilation** –Based on the demand from the users, selective list on specific topics and subjects are generated. As a part of the project work, students, enrolled for B.L.I.Sc. Course of Y.C.M.O.U., compile different types of bibliographies on various topics.

* **In-house/remote access to e-resources** – Our College is an institutional member for the N-LIST programme of the INFLIBNET and DELNET which provide access to E-resources in the form of E-journals, E-books, E-databases and Union Catalogues. The access is provided through institutional user IDs and password login. We have 4 paid databases and 5 open access databases. Paid database can be accessed anywhere from college campus and Open access Databases can be accessed remotely also.

* **User Orientation and awareness** - To educate the users about the various library facilities and create awareness about its activities, following steps are put into practice:

- i. Comprehensive information about library is provided and updated through college prospectus and website.
- ii. Individual and group user orientation is also periodically carried out.
- iii. Orientation lecture is given to students and staff.
- iv. Book fair and exhibition cum sale are organized to inculcate reading habits.

* **Assistance in searching Databases** - Yes. As per the user need, personal assistance on searching techniques is provided in searching information through different search engines and freely available databases.



- * **INFLIBNET/IUC facilities** - The central library has been an institutional member of INFLIBNET N-LIST programme and DELNET. This has facilitated our users to have access to e-resources and their services.

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

To achieve Institution mission and vision, library staff as a team offers the following support services to the optimum satisfaction of its users:

- Open access to the titles in shelves to PG students and all staff members.
- Open access to all students and staff for Periodicals and magazines.
- Departmental Library Provision for additional borrowing of books to staff and students.
- Value addition services like Book Bank scheme for Reserve Category Students, Unaided Department student, economically weaker students and meritorious students.
- Library kept open on Public holidays and on Sunday's commencement of exams.
- Internet Resource Center for all students and staff.
- Reference Services.
- Referral Service
- Competitive Examination /SET / NET Examination and Career Guidance Services.
- Digital Repository on which Question Papers, Question Banks, Research Papers, Syllabus, Notes have been updated.
- Inter-Library Loan Services for students and staff.
- Display and guidance on essential information related to careers and employment.
- Our Library is a center for YCMOU B.L.I.Sc, M.L.I.Sc and Diploma in Journalism Course, so we provide facility for outside students related with this course.
- External Membership Facility for Reading purpose only (Paid Service).
- Compilation of University Question Papers and distribution services to faculty as well as students.
- Other extension activities like Issuing of ID cards(Smart card), College Magazine distribution etc.

Library is used by faculty from other colleges for reference work and our reading rooms provide the academic ambience for the student of our college and also to students from other institutions.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

BNBCS being Science Faculty College and generally differently-abled students do not opt for science courses. In future if we get such students, we are ready to provide required facilities



4.2.9 Does the library get the feedback from its users? If yes, how is it analysed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)

Yes. At the end of the year IQAC committee take the feedback form from the students in which a separate section regarding library facilities is asked. After analysing the feedback measures for improvement of library services are suggested by IQAC and Principal, these suggestions are discussed with the Librarian and measures are taken.

BNBCS also has suggestion box in library, Librarian addresses the suggestions after discussing with Principal.

4.3 IT Infrastructure:

4.3.1 Give details on the computing facility available (hardware and software) at the institution.

- Number of computers with Configuration (provide actual number with exact configuration of each available system). Details are given in Table 4.3.1 (1)
- Computer-student ratio: 1:1*

* The ratio is for Computer Science / I.T. students.

- Stand alone facility: None.
- LAN facility : Yes.
- Licensed software : Operating System -Microsoft Windows 7 and 8.1, Office Suite Office 2007 and Office 2010, Quick Heal Antivirus.
- Number of nodes/ computers with Internet facility : 229
- Any other: **Licensed Software:** Campus agreement of Microsoft Products.



Table 4.3. 1 (1): Details of Computers in the College

Sr. No.	Department	Position	No. of Computer	Mother board	RAM	Hard Disk	LCD Projectors, Printer & Scanner
1	Chemistry	HOD Cabin, Staff Room, Physical Lab, Lab. Assistant Cabin	4	INTEL Pentium Dual Core CPU @ 1.6 GHz	2 GB RAM	80 Gb	LCD - Hitachi CP-RX 82
2	Physics	Lab : 16; HOD: 01; Non-teaching : 01	18	INTEL Pentium Dual Core CPU @ 2.6 GHz	2 GB RAM	200 Gb	LCD - Hitachi CP-RX 79 LCD - Hitachi CP-RX 82 LCD - NEC V300 Printer - HP Laserjet 2010
		Staff Room	2	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	
		Jr. Lab	1	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	
3	Mathematics / Statistics	Laboratory	12	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	LCD - Hitachi CP-RX 82 LCD - Hitachi CP-RX 82 Printer - HP Laserjet 2010
		HOD, Staff Room	3	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	
4	Zoology	HOD, Staff Room, Lab	4	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	LCD - Hitachi CP-RX 82 Printer - HP Scanjet G2410
5	Biochemistry	Biochemistry Incharge	1	INTEL Pentium Dual Core CPU @ 3 GHz	2 GB RAM	500 Gb	Nil



Sr. No	Department	Position	No. of Computer	Mother board	RAM	Hard Disk	LCD Projectors, Printer & Scanner
6	Microbiology & Biotechnology	HOD Cabin	1	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	LCD - Hitachi CP-RX 82
		Laboratory	3	Intel Core i3@2.30 Ghz	2 GB RAM	150 Gb	
		Non-Teaching room	1	Intel Pentium @ 2.70 Ghz	2 GB RAM	500 Gb	
7	Lab	5	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb		
8	Botany	Lab	2	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	80 Gb	LCD - Hitachi CP-RX 82
9	Gymkhana	Gymkhana	1	INTEL Pentium Dual Core CPU @ 1.6 GHz	1 GB RAM	80 Gb	Nil
10	Foundation Course	Incharge Room	1	INTEL Pentium Dual Core CPU @ 1.6 GHz	1 GB RAM	80 Gb	Nil



Sr. No	Department	Position	No. of Computer	Mother board	RAM	Hard Disk	LCD Projectors, Printer & Scanner
11	Information Technology	Laboratories, Incharge Cabin, Staff Room, Non-Teaching Staff room, Used for lectures	20	Intel Core i5@3.10 GHz	8 Gb RAM	320 Gb	LCD - Hitachi CP-RX 82 (Two) LCD - NEC V300X (Two) Printer - HP Laserjet 1606 dn Printer - HP Laserjet 2010 Scanner - HP Scanjet G2410
			15	Intel Core i3@3.30 Ghz	4 Gb RAM	500 gB	
			61	INTEL Pentium Dual Core CPU @ 2.00 GHz	2 GB RAM	150 Gb	
12	Patanjali Auditorium	Patanjali Auditorium	Nil			LCD - NEC V300X (Two)	
13	Gymkhana	Gymkhana	1	INTEL Pentium Dual Core CPU @ 1.6 GHz	1 GB RAM	80 Gb	Nil



Sr. No	Department	Position	No. of Computer	Mother board	RAM	Hard Disk	LCD Projectors, Printer & Scanner
14	Library	Counters	2	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	150 Gb	Printer - HP Laserjet 1606 dn Scanner - HP Scanjet G2410
		Counters	1	INTEL Pentium Dual Core CPU @ 1.6 GHz	1 GB RAM	80 Gb	
		Librarian Room	1	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	240 Gb	
		Reference Room	1	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	240 Gb	
		Junior Clerk Table	1	INTEL Pentium Dual Core CPU @ 2.6 GHz	1 GB RAM	150 Gb	
		For students	10	INTEL Pentium Dual Core CPU @ 1.6 GHz	1 GB RAM	80 Gb	
		For OPAC	1	INTEL Pentium CPU @ 2.6 GHz with TOUCH SCREEN	1 GB RAM	240 Gb	



Sr. No	Department	Position	No. of Computer	Mother board	RAM	Hard Disk	LCD Projectors, Printer & Scanner
15	Office	Office	3	INTEL Pentium Dual Core CPU @ 2.6 GHz	2 GB RAM	500 Gb	Printer - HP Laserjet 1020 Printer - HP Laserjet 2035 Printer - HP Laserjet 2015 (All above printer are Network Printers) Scanner - HP Scanjet G2410
			2	Intel Pentium @1.60 GhZ	1 GB RAM	80 Gb	
		Connected to server	22	Thin Client machines	256 Mb RAM	Nil	
			10	Thin Client machines	256 Mb RAM	Nil	
16	Examination Room	Examination Room	3	INTEL Pentium Dual Core CPU @ 3 GHz	3 Gb RAM	500 Gb	Printer - HP Laserjet 1606 dn
17	Conference Room	Conference Room	1	INTEL Pentium Dual Core CPU @ 1.6 GHz	1 GB RAM	80 Gb	LCD - Hitachi CP-RX 82



Details of Laptops

Sr. No.	Department	No. of Laptop	Mother board	RAM	Hard Disk
1	Principal	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
2	Principal	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
3	IQAC Coordinator	1	Intel Core i3 @ 2.40 Ghz	4 Gb	500 Gb
4	Councillor	1	Intel Core i3@2.30 Ghz	4 Gb	500 Gb
5	Computer Science	1	Intel Celeron @ 1.60 Ghz	2 Gb	40 Gb
6	Information Technology	1	Intel Core Duo @ 2 Ghz	3 Gb	240 Gb
7	Information Technology	1	Intel Celeron @ 1.30 Ghz	256 MB	40 Gb
8	Zoology	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
9	Physics	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
10	Botany	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
11	Chemistry	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
12	Mathematics	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
13	Statistics	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
14	Microbiology	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb
15	Biotechnology	1	Intel Core i3@2.40 Ghz	3 Gb	100 Gb

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

- All the computers on the entire campus computers are connected by LAN and Internet facility is available to all continuously. In addition, our campus is Wi-Fi enabled.
- Students and staff members can register their laptops, mobiles and can avail Internet facility on Campus free of cost.
- Outsiders can request concern authorities and after permission, registration can avail Internet facility on Campus.
- Computer and internet facilities provided to students and staff in all departments and in the library free of cost.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

Institute is planning to use Open Source software wherever possible. Staff members are getting trained for the same through workshops. Office is already working on Open Source.

4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Particulars	2010-11	2011-12	2012-13	2013-14
Provision in annual budget for procurement	3,75,81,000	5,34,49,000	6,67,92,000	7,20,34,000
Computer Repairs & Maintenance	1,50,000	25,000	25,000	40,000

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

BNBCS facilitates extensive use of ICT resources by its staff and students

All departments have computers with connectivity. All departments are provided by laptop and LCD projector, which are utilized by the teachers for certain topics or whenever required

- Many lectures are conducted with the help of projectors.
- Animation is used to explain the subject.
- Power-point presentations made by teachers are stored and shown to students.
- Video clips of lectures are made available to the students.



- Notes/question banks and old question papers are uploaded on digital repository
- Library with computers for using e resources

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

Teachers are skilled in usage of computer aided teaching. Students are also trained to use e-learning resources. Students are allotted seminar topics which they present using ICT. This also encourages self-learning and builds confidence in them. College has provided all the departments with Laptops, and LCD projectors. Some class rooms are provided with LCD screens. The auditorium is equipped with audio visual aids. All teachers encourage the students for independent learning. Assignments and project work guided by teacher mentors has further emphasized the role of the teacher as a facilitator.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

No. At present no such facility is provided but will be considered seriously in due course. But we are having A-view account using which students are benefited by listening lectures of well known personalities.

4.4 Maintenance of Campus Facilities:

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

VPM carries out the repairs and maintenance of the building and campus. VPM has appointed technical staff for maintenance of the computers. BNBCS has to pay cost incurred to the management.

BNBCS ensures optimal allocation and utilization of available financial resources equipment and computers. Most of equipments are under annual maintenance contract.

Tab4.4.1(1) Expenses made(in Rs.) in last four years

	Particulars	2010-11	2011-12	2012-13	2013-14
a.	Building Repairs.	8,16,282	8,16,282	8,16,282	8,16,282
b.	Furniture and equipment Maintenance	18,31,457	51,93,075	10,24,074	21,53,240
c.	Computers Repairs and Maintenance	2,12,889	2,06,432	3,54,362	2,40,081

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

Management plays an important role in maintenance and upkeep of infrastructural facilities and equipments of the college. As per the requirements from time to time amount is being spent for maintenance and upkeep of infrastructure. Safety and security of students and faculty members is taken into account.

- Annual maintenance contracts have been signed, especially for the maintenance of sophisticated instruments.
- Maintenance of laboratory equipment required for experiments and research purposes of students and faculty members is taken care of.
- Regular practice of maintenance of Library books by library staff is exercised.
- One person is appointed for maintenance of computers and additional help is available from service centre of VPM.
- College staff does regular internal checking and normal maintenance.
- Other repairing work such as Repairs of furniture and fixtures, Cleaning up of water tanks, Plumbing, electrical fittings is taken care of by contractor who is associated with the VPM on a regular basis. He looks after regular maintenance.
- Additional staff is appointed for cleaning of the building and campus.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?

As per the requirements from time to time, after inspection by concerned authorities, calibration and repairs and maintenance of equipments and instruments is executed.

Costly equipments are covered under annual maintenance contracts. For maintenance of aquaguard.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

We are having Express Feeder on Campus because of which campus is protected from voltage fluctuations. Rarely do we face problems of electricity failures. However, for sensitive equipments UPS are employed for further protection.

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

Optimum utilization of space and resources is practiced in our Institution. BNBCS believes in taking care of all the assets which have procured by maintaining them properly, upgrading as and when required and making them available to students and



staff members and to some extent to the society.


Available Infrastructure and Learning Resources

On Campus Common for all Institutes
<ul style="list-style-type: none">• Well maintained Green Campus• Wi-Fi, Internet –free of cost to all• Entry by using Smartcards.• 24x7x365 security at the gate.• Six equipped auditoriums & two audio-visual rooms connected with optic fiber.• Two open air theaters• On entire campus, all computers are LAN connected. Direct Lease lines of MTNL and VSNL network• Centralized Server Room maintains 14 servers for Students' Database, Payroll, Finance, Web server, MKCL Server, Library and 24/ 7 Security Gate.• Jogging track along 'Jnanapath'.• Canteen facility is available from 8.00a.m.-8.00 p.m.• Play ground for outdoor games.• All libraries on the campus are interlinked by OPAC.• On line journal facility J- STOR is made available on our website. Paid databases are made available to all students and staff free of cost (Cost bared by VPM).• Photocopy centre on the campus.• Parking space for staff vehicals.• Botanical garden• Separate rooms for NCC- Army, NCC-Navy officers.• Publication of bimonthly magazine- "Disha."
In the College
<ul style="list-style-type: none">▪ 19 classrooms and 23 well equipped laboratories.▪ Common staff room with exercise bi cycle.▪ Room for non teaching staff.▪ Separate rooms for HOD, teaching staff and nonteaching staff in each department.▪ CCTV cameras are installed at major places and in the corridors.▪ Administrative office and examination cell are fully computerized.▪ Conference room.




- Laptop, portable LCD projectors are provided to each department.
- 197 - Computers, 15 - Laptops, 15-LCD projectors, 6 - Scanners, 3- OHPs, 1-Web printer 12-printers, 2-Photocopy machines, one - copier.
- Gymkhana facilities for indoor games.
- Well equipped gymnasium.
- Patanjali Yoga centre.
- Patanjali Auditorium.
- Publication of yearly magazine, and E-journal.
- Library works on web OPAC & has 26319 books, 41 Journals, 23 periodicals.
- Digital depository facility.
- First aid boxes and fire extinguishers at all major places.
- Plasma TVs are installed, one on ground floor and other in waiting room outside principal's cabin.
- Water cooler in the corridor, aqua guard in all the departments & in the common staff room.
- Tea vending machine in staff room.

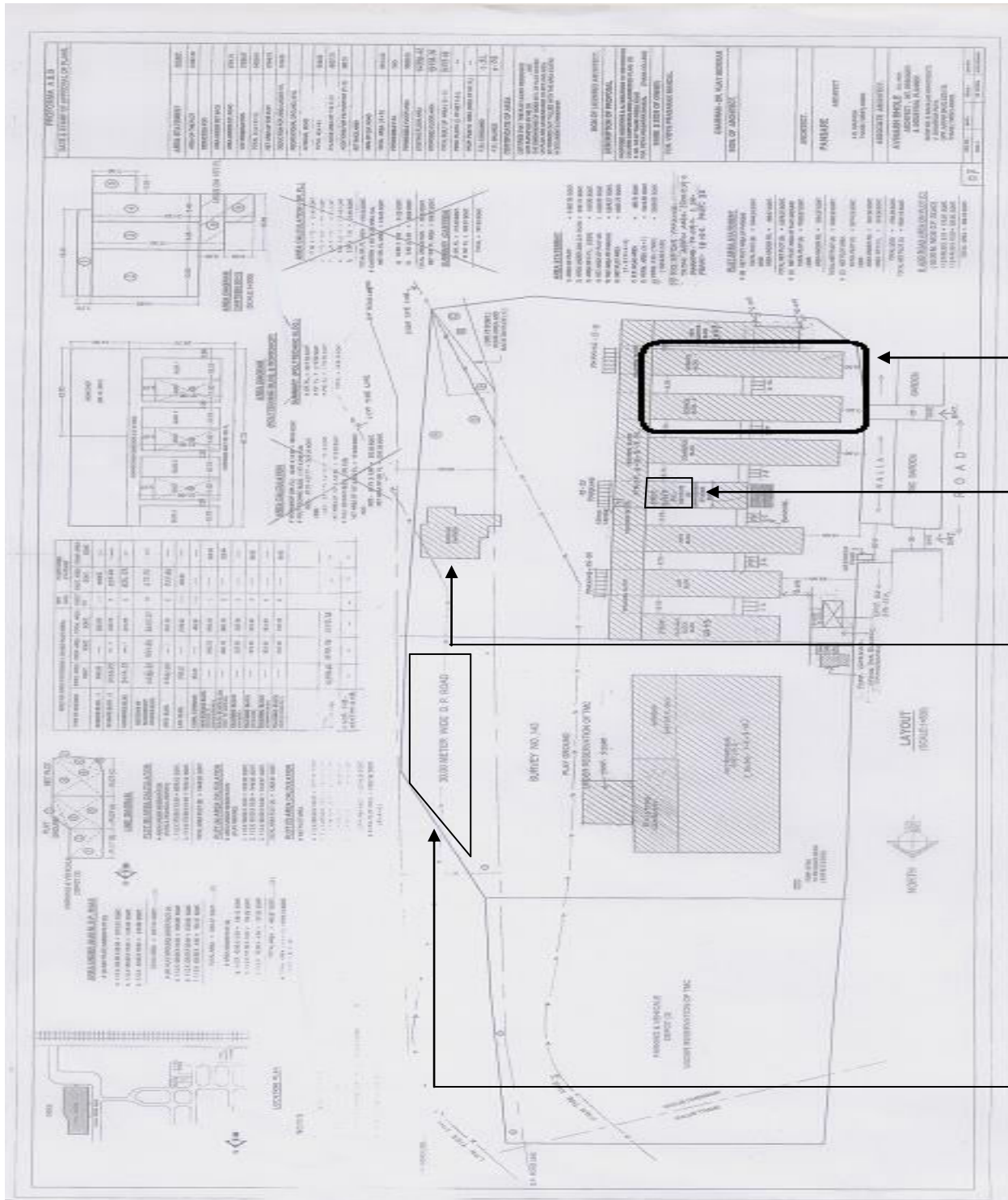


	V.P.M's B. N. BANDODKAR COLLEGE OF SCIENCE, THANE. BUILDING CHART BUILDING No. 6											
GROUND FLOOR												
A wing					B wing							
Staff room 58.54 sq.m. 2.03 sq.m. 4.18 sq.m.		Ladies room 13.41 sq.m		Gymkhana 101.93 sq.m.			Dept. Of Microbiology 140 sq.m.		Chemistry Research lab 135 sq.m.		Chemistry M.Sc.lab 215 sq.m.	
FIRST FLOOR												
A wing					B wing							
Conference Room 35.62 sq.m	Principal Office 25.74 sq.m.	V. Prin Degree College 10 sq.m.	V. Prin Junior College 10.24 sq.m	Administrative office 88.94 sq.m.		Room No. 9 69.77 sq.m.	Room No. 8 85.87 sq.m.	Dept Of I.T.	I.T Lab 1 48.25 sq.m.	I.T Lab 2 48.25 sq.m.	I.T Lab 3 47.76 sq.m.	
SECOND FLOOR												
A wing							B wing					
Comp Sc. Lab 75.62 sq.m.	Room No. 19 32.61 sq.m.	Room No. 18 32.61 sq.m.	Room No. 17 32.61 sq.m.	Room No. 16 48.25 sq.m.	Room No. 15 48.25 sq.m.	Room No. 14 32.61 sq.m.	NSS Room 32.61 sq.m.	Room No. 10 75.62 sq.m.	Room No. 11 69.60 sq.m.	Room No. 12 69.60 sq.m.	Room No. 13 76.34 sq.m.	
THIRD FLOOR												
A wing					B wing							
Pantanjali Auditorium 189.92 sq.m.		Pantanjali Yoga Kendra 165.42 sq.m.			LIBRARY 299.23 sq.m.							



 V.P.M's B. N. BANDODKAR COLLEGE OF SCIENCE, THANE. BUILDING CHART BUILDING NO. 7										
GROUND FLOOR										
A wing					B wing					
Room No. 1 63.84 sq.m.	Room No. 2 67.47 sq.m.	Chemistry Physical Lab 69 sq.m.	Dept. Of Chemistry 35.26 sq.m.	Chemistry Store Room 33.72 sq.m.	CHEMISTRY Lab No 1 153.34 sq.m.	Chemistry Preparation Room 23.35 sq.m.	CHEMISTRY Lab No 2 149.11 sq.m.			
FIRST FLOOR										
A wing					B wing					
Room No. 3 63.73 sq.m.	Room No. 4 70.64 sq.m.	Room No. 5 24.29 sq.m.	Computer lab 20.48 sq.m.	Room No. 6B 16.99 sq.m.	Dept. Of Mathematics & Statistics 53.50 sq.m.	PHYSICS Lab No. 1 152.18 sq.m.	Dept. Of Physics 30 sq.m.	PHYSICS Lab No. 2 150 sq.m.	PHYSICS M.Sc. Lab	PHYSICS Research Lab 8.81 sq.m.
SECOND FLOOR										
A wing					B wing					
Biotechnology Lab 44.88 sq.m.	Dept. Of Biotechnology	Room No. 7 5.81 sq.m.	Dept. Of Botany	Botany Lab 76.82 sq.m.	ZOOLOGY Lab No. 1 137.35 sq.m.	Dept. Of Zoology	ZOOLOGY Lab No. 2 102.46 sq.m.	ZOOLOGY Research lab 12.53 sq.m.		

Master Plan of the Campus



BNBCS

Common NCC Room

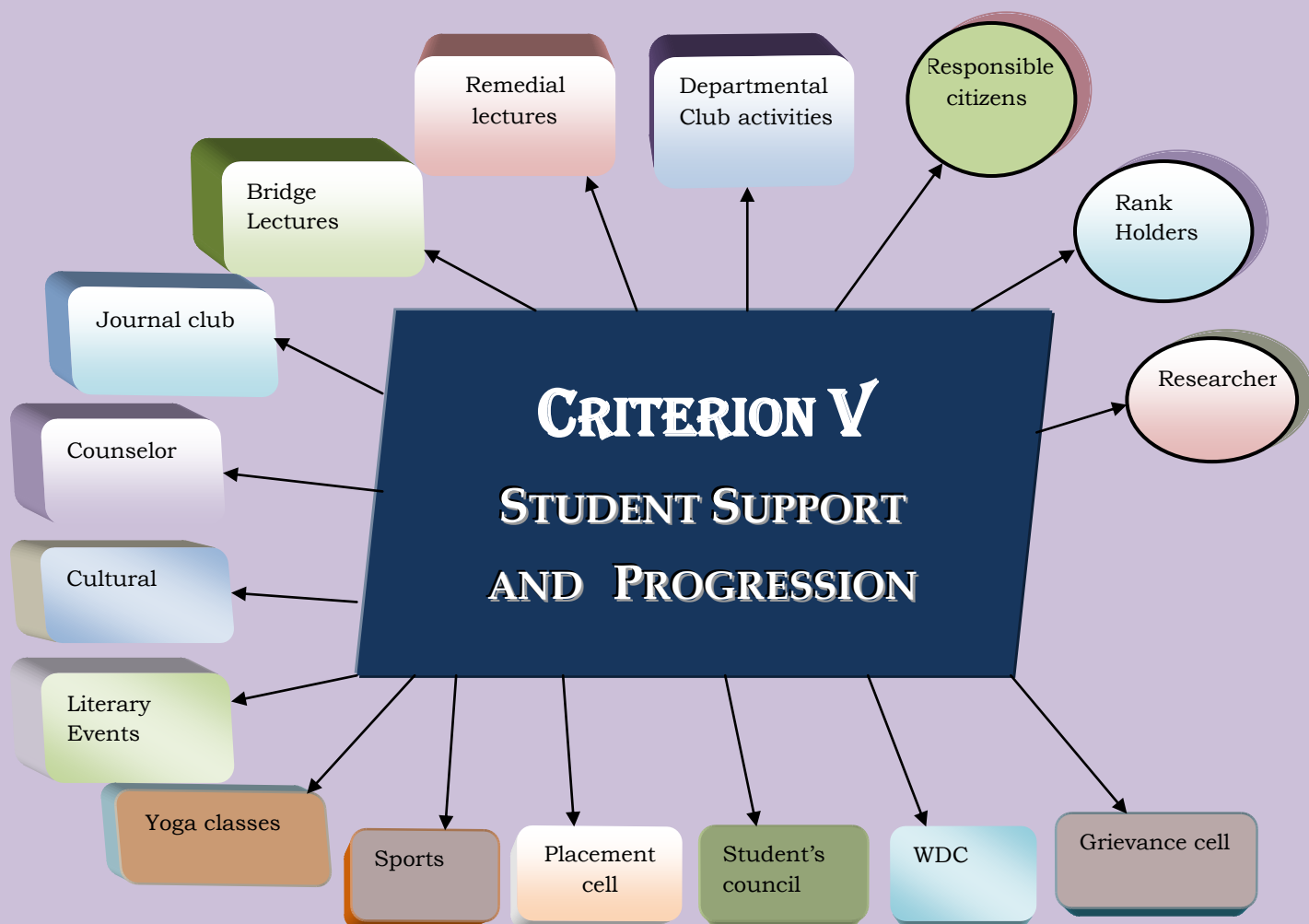
Common Auditorium & Canteen

Common Playground



Strength and growth come only through continuous effort and struggle.

~ Napoleon Hill





CRITERION V: STUDENT SUPPORT AND PROGRESSION:

5.1 Student Mentoring and Support:

Students, teachers, non-teaching staff and management are four pillars of any educational institute. When all these personnel work in harmony, an institution leads to high rise building of success. BNBCS is progressing with strong support of all these stakeholders. Our students are the catalysts for the institutional development. College is devoted to holistic task of student progression and their activities.

Following Bill Gates thought that -“Your most unhappy customers are your greatest source of learning.” We always try to hear and incorporate feasible suggestions given by our Stakeholders.

5.1.1 Does the institution publish its updated prospectus/handbook annually? If ‘yes’, what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

YES. BNBCS believes in transparency in all transactions related to its stakeholders. Detail information about college is presented in the prospectus.

- BNBCS publishes updated prospectus annually. An updated prospectus is made available to the students every year at the time of admission.
- The prospectus contains Vision and Mission statement of the college, details of all available courses, subject combinations, new courses started, different associations, names and details of faculty from different departments, rules and regulations received from the government, fee structure, list of the endowments prizes and scholarships offered. It also provides information regarding rules pertaining to ragging, and role of women development cell. Information about Seminars / Workshops conducted during previous years & plan for current year is also given.
- In the prospectus, rules and regulations are printed in English as well as in Marathi for parents of first generation learners.
- Moreover every year in the beginning of the academic year, the college publishes an academic calendar, which outlines the schedule of events for the year.
- The Prospectus and Calendar are available on the College website www.vpmthane.org/BNB/
- Strong support from Proactive management VPM, Dynamic Principal and an Active IQAC ensures the commitment and accountability.

5.1.2 Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

- The college has endowment prizes which are awarded to the meritorious students. Every year thirty students get prizes for academic excellence.
- Several teachers provide financial help to needy students at personal level.
- College promotes all information about various financial aid schemes available by central government/ state government and private organizations.

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

In the beginning of the academic year students are informed about the various freeships and scholarships which are available to them. Students are informed by displaying notices. Apart from displaying notices, they are read in classes.

Table 5.1.3(1) Number of students getting financial assistance for last four years.

Year	2010-11	2011-12	2012-13	2013-14
Scholarship (ST/Sc/OBC/SBC/NT/Minority)	163	191	180	185
Free ship (ST/Sc/OBC/SBC/NT/EBC/ZP)	212	173	157	156
Merit Scholarship	2	-	-	13
Other	1	2	2	2
Inspire Scholarship	-	-	2	3
Total	378	366	341	359
Total Number of students	1353	1381	1410	1570
Percentage of students getting scholarship/Freeships	27.94	26.50	24.18	22.86

5.1.4 What are the specific support services/facilities available for

At BNBCS, large number of student belonging to the economically weaker section of the society takes the admission.



- **Students from SC/ST, OBC and economically weaker sections:**
 - **Scholarships, Freeships:** Through display of the notices on the Notice Boards at prominent places, the College makes the students aware of the different scholarships / freeships available for them.
 - **Book bank scheme** is made available for students from economically weaker sections.
 - **Earn and learn scheme** Our I.T. students help in the admission process and they are paid for their services. Some students help in data entry process for which they are paid.
 - **Students are allowed to pay the fees in installments.**
- **Students with physical disabilities:** Since BNBCS is science faculty college students with major disabilities do not take admission. But for physically handicap students
 - ✓ Special attention is given by Mentors
 - ✓ During practical sessions teachers take special care of such students.
 - ✓ As per University rule extra time or writer is provided.
- **Overseas students:** So far, no overseas students have sought admission to the college
- **Students to participate in various competitions/National and International:**
 - ✓ Students are encouraged to participate in various competitions (curricular, co-curricular and extra-curricular). Students' achievements are aptly acknowledged.
 - ✓ The College organizes National Conference every year and students are exposed to the National Level Poster Competition each year.
 - ✓ This year we hosted "Avishkar" Competition on behalf of UOM. Conduct of such competitions inspires students to go for research.
 - ✓ **Attendance** condonation is given to students to encourage participation in competitions. **Alternate schedule** for practical and theory exam sessions is provided in a need based manner to enable students to participate in competitions.
- **Medical assistance to students:**
 - ✓ First-aid kit is placed in all the Departments.
 - ✓ VPM has its own hospital 5-7 minutes away from the college where students are provided medical assistance free of cost.
 - ✓ Students are insured under Group Insurance scheme.
- **Organizing coaching classes for competitive exams:**
 - ✓ Faculty members guide and motivate students to appear for various competitive exams.



- ✓ Library supplements the required material for students.
- ✓ Micro and Biotech departments provide guidance and coaching for the competitive exams like JNU, TIFR.
- **Skill development (Spoken English, Computer literacy, etc.)**
 - Diploma and certificate courses mentioned in 1.2.1 are designed with the aim of skill development.
 - Short term courses and workshops on personality development and leadership training give stress on spoken English are useful to build confidence and boldness among students.
 - To promote computer literacy among students and teachers courses like Basics of R-Programming, Use of SPSS, Movie making, LAREX are conducted.
 - For complete development of students, Scholars Academy Programme with 13 modules has been started from 2013-14.
- **Support for 'slow learners':**
 - Remedial Coaching for slow learners is held regularly.
 - The faculty of respective subjects identifies slow learners, motivate and counsel them to upgrade their skills.
- **Exposure of students to other institution of higher learning/ corporate/business house etc.**
 - ✓ Guest lectures, Scientists, Visiting faculty interacts with students and makes them aware of various opportunities awaiting them on the completion of their education.
 - ✓ Career Melava- is arranged every year to explore various branches available for further studies.
 - ✓ Alumni from the industry update knowledge about current Market requirements.
 - ✓ Study tours, field visits and industrial visits are also conducted by departments to expose students to the challenges of the vast world outside.
- **Publication of student magazines**
 - The college magazine E-Sanyuja, published annually, provides opportunity to students to publish their articles, short stories, poems, creative art, etc.
 - VPM publishes Disha.
 - Wall paper provides opportunities to students to showcase their talent and creative skills. The creativity of the students is demonstrated through the articles displayed on the Wall Papers in the college.
 - Annual E-Journal J-BNB helps student to publish their papers based on their mini research project work.



5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

- BNBCS promotes entrepreneurial skill development amongst the students through various short term courses/lectures.
- Under the scheme of DLLE, many short courses are run viz. Mehndi art, Hairstyling, Bridal Make up, confectionaries etc
- Short course of 'Matsyahaar' - course on preparation of prawn pickle, fish burger & 'Shakahaar' - course on preparation of jam, jelly, squash are regularly conducted in the college premises there by promoting entrepreneurial skills.
- Departments of Zoology, Information technology, Biotechnology and Microbiology arrange industrial visits/research institute visits which are useful for the motivation to develop entrepreneurial skills among the students.
- T.Y. B.Sc. students from Botany, study applied subject Horticulture that is useful for self-employment.
- T.Y. B.Sc. students from Zoology, study applied subject Fishery Biology. It is included in syllabus with the intension that students can continue this as their profession after graduation.
- Training in various disciplines such as landscape gardening, Mushroom cultivation, preparations of jams, pickles, etc. is given so that students become capable of starting their own home industries.
- For EVs students, workshop on solid waste management was conducted. Students are trained to give guidance for solid waste management.
- Alumni association helps needy students in this matter. Some of our alumni are in the field of dramatics and films that have helped students by directing dramas for various competitions and even giving chance for acting in a movie.
- The college festival 'Akanksha' is managed by the students under the guidance of the Cultural coordinator there by honing their event management skills.
- Impact of these efforts is majorly observed amongst the students coming from the economically weaker background, who have used these skills to generate income.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

BNBCS strongly believes in all round development of the students and hence amenities essential to promote participation of students in extra and co-curricular activities including sports are provided to the students. 52 committees ensure that opportunity is provided to maximum students for participation in various co-curricular activities. The committee ensures timely dissemination of information regarding various competitions.



5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, GATE / CAT / GRE / TOFEL / GMAT/ Central /State services, Defense, Civil Services, etc.

At BNBCS we arrange lectures to give complete information about all competitive examinations. We do not conduct regular coaching classes. But, there are good numbers of books available in our library, which is useful for preparation of these examinations. Teachers in their individual capacity help needy students.

5.1.8 What type of counseling services are made available to the students? (academic, personal, career, psycho-social etc.)

- Since Mental health is as important as Physical health, A Full time counselor is appointed in the college to cater to the diverse needs of the students and help them get a perspective.
- The counselor handles issues related to academic, personal and career related issues of the students.
- Many initiatives like conducting life skill sessions for each class, arranging lectures to promote ethical & moral values, are being planned to promote mass mental health awareness amongst the students, keeping in mind the principle of prevention is better than cure.
- Lectures on Self awareness, stress management, assertive communication were arranged for TY students.
- This helped to increase rapport with the Students, thus encouraging them to come forward and share their issues with the counselor.
- “A mass awareness boards” highlighting various positive quotes and stories are maintained by the counseling cell.
- The cases in which parental support was needed were communicated to parents.
- Different clubs arrange lectures to make students aware of fields, which they can pursue after graduation.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

YES, GRAB- IT the employment cell in the college has been functional since 2003-04.

- Career Melava: A unique concept instilled in the college where various members of diverge fields come and interact with students to give them insight into the numerous career options available for them.
- Degree College Career Melava: The Degree College has started hosting this program department wise, so that students from each department get specific guidance about their specializations.
- Physics lectures: A distinctive program initiated by Department of Physics, where in they invited physic scientist from the alumni of BNBCS to orient the physics students and motivate them to aim for higher and better. Result of which is increased physics seats at TY.
- Competitions: Many Competitions are conducted in the campus to impart varied skills to the students for e.g. Mr. / Ms. Bandodkar where in basic grooming and body language etiquettes are imparted to the selected students.
- Alumni sessions: Alumni from various specializations are invited to interact with students.
- Exhibitions of mixed nature are organized to encourage various skills like photography. For the same interactive sessions were organized under employment cell.
- Certificate Programs are presented in a Flyer.
- Various lectures on soft skills, communication skills, MPSC/UPSC training. What after Graduation? etc. are timely conducted.

Table 5.1.9(1) campus placement data for last four years.

Academic Year	Total No. of Students Interviewed	Total No. of Students Selected
2010-11	128+84*	23+77*
2011-12	56	08
2012-13	136	15
2013-14	169	62

*Were interviewed for training



5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

YES. The college has a student grievance redressal cell.

- Student's problems are discussed in Students' Council Meetings. Decisions related with planning, coordination and execution of extracurricular activities are taken through Students' council.
- The college also has an active Special cell to resolve the grievances of students and teachers belonging to reserved category.
- The college maintains a very healthy atmosphere and believes in family culture; hence no major grievance is reported during the last two years.
- The grievances regarding sexual abuse are handled by WDC.
- The college takes the feedback from the students through various channels like suggestion box, mentors, and students' feedback.
- Grievances are tapped through these and are aptly addressed.

For e.g. College Office Counter Timings, Library Timings, and Behavior of the office staff.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

A Women Development Cell has been established as per the circular issued by the University of Mumbai WDC/GenCorp/35 of 2005 dated 11th August, 2005. The composition of the WDC at the college level is as per the guidelines which address any case pertaining to sexual harassment.

Every six month the report of WDC is placed in front of the college committee.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

YES, there is an anti-ragging committee in the college. UGC regulation on ragging is promptly displayed in strategic location. It is also available on the Institutional website and in the college prospectus.

The Boards with message -“Ragging is a crime, the reward is Jail” are displayed in the college at prominent places.

One case was reported and students were asked to see the counselor regularly.

Every six month the report of anti-ragging committee is placed in front of the college committee.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

- Insurance: We have Group Insurance scheme for students.
- Canteen Facility: In our campus we have sophisticated canteen, which caters to the requirements of the staff and students. The canteen is centrally located and provides a range of food items at affordable rates to students.
- Counseling Cell: A full time counselor is appointed to cater to various emotional and academic needs.
- Special Diet: During N.S.S. camp special food is arranged for the students. Food is also provided to the students during the practice session /pre-cultural preparation.
- Book-bank facility for students from economically weaker section.
- Computer with Internet facility free of cost to all.
- Support for research activities.
- “Earn while you learn” scheme: Our I.T. students help in the administration/ admission process and they are paid for their services.

Table 5.1.13(1) Students under earn and learn system.

Year	2009-10	2010-11	2011-12	2012-13	2013-14
Number of students benefited	41	2	31	47	48
Total Amount given	7,175/-	36,000/-	43,600/-	59,264/-	87,394/-

- Our Microbiology and Biotechnology students do internship during summer.
- Help desk during admission period.
- Students’ welfare funds.
- Yoga classes are conducted free of costs for all students.
- Support for students participation in various conferences by giving attendance condonation and arranging extra practical sessions.
- Special incentives to the NCC cadets and sport persons.
- Online admission – computer help made available.
- Grace marks to Students participating in activities conducted by NSS, NCC, Sports, Cultural and Lifelong learning-DLLE (as per the University rules).

5.1.14 Does the institution have a registered Alumni Association? If ‘yes’, what are its activities and major contributions for institutional, academic and infrastructure development?

Yes. The institution has an Alumni Association “Anubandha”. But it is not registered.

- The registration form for the past students is made available on line so that the past students can register from anywhere in the globe.
- Yahoo group is created for alumni namely “anubandha@yahoogroups.com”. The

Alumni come and interact with the current students for various career openings.

- Two Alumni are members of IQAC; they give suggestions for betterment of college.
- Yearly alumni meet is conducted.

5.2 Student Progression:

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

Exact data is not available as all students do not communicate their status. We are in a process to develop a system to communicate with outgoing students.

On an Average data is given in the following table:

Student progression	%
UG to PG	20
PG to Ph.D.	NA
Employed	
• Campus selection	10%
• Other than campus recruitment	70%

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

Table 5.2.2(1): College and University results over last four years.

		2010-11	2011-12	2012-13	2013-14
T.Y. B. Sc.	College	68.57	69.77	57.48	69.61
	University	56.41	54.22	44.41	47.5
T.Y. B.Sc. (I.T.)	College	76.12	76.79	69.02	64.95
	University	54.65	51.22	47.70	56.60
M.Sc. (Chem.)	College	100	71.43	72.84	57.14
	University	NA	NA	NA	NA
M.Sc. (I.T.)	College	100	100	89.47	88.89
	University	73.43	84.67	NA	NA
M.Sc. (EVS.)	College	NA	NA	100	100
	University	NA	NA	NA	NA
M.Sc. (Physics)	College	NA	NA	NA	82.0
	University	NA	NA	NA	NA

Table 5.2.2(2): College Toppers percentage for last five years.

	2009-10	2010-11	2011-12	2012-13	2013-14
T.Y. B. Sc.	90.87	94.87	93.75	91.88	94.00
T.Y. B. Sc. IT	75.81	77.61	72.32	73.35	79.75
M.Sc-I.T	62.50	64.6	59.7	63.80	65.49
M.Sc. Ev.Sc	NA	NA	NA	78.5	77.58
M.Sc. Physics	NA	NA	NA	NA	67.58
M. Sc. Chemistry					68.75

Table 5.2.2(3) : Result for last four years subject wise.

Subject/ Class	1 st Class	2 nd Class	Pass Class	Total	Total Appeared	Passing Percentage
2010-2011						
Chemistry	7	25	-	32	60	53.33
Botany	13	3	-	16	17	94.11
Zoology	4	4	-	8	9	88.88
Physics	2	2	-	4	7	57.14
Maths	3	11	-	14	21	66.66
Statistics	12	9	1	22	26	84.62
Biotech	7	12	-	19	22	86.6
Micro	1	4	-	5	13	38.47
CS	-	2	14	16	22	55.34
IT	55	15	03	73	114	64.07
Total	104	87	18	195	311	62.70
2011-2012						
Subject/ Class	1 st Class	2 nd Class	Pass Class	Total	Total Appeared	Percentage
Chemistry	15	49	-	64	95	67.37
Botany	14	2	-	16	16	100
Zoology	10	9	-	19	19	100
Physics	1	6	-	7	21	33.00
Maths	4	7	1	11	25	44.00
Statistics	9	5	1	14	23	60.87
Biotech	7	17	1	24	25	96
Micro	4	5	-	9	13	69.23
CS	5	11	-	16	21	79.16
IT	35	19	32	86	112	76.79
Total	104	130	35	266	370	71.89

2012-2013						
Subject/ Class	1 st Class	2 nd Class	Pass Class	Total	Total Appeared	Percentage
Chemistry	11	19	-	30	68	44.17
Botany	7	6	-	13	16	81
Zoology	7	10	-	17	21	81
Physics	3	12	-	15	35	42.85
Maths	4	4	-	8	24	33.00
Statistics	8	6	-	14	23	60.87
Biotech	6	11	-	17	22	77.00
Micro	2	11	-	13	21	61.90
CS	9	10	-	19	24	79.16
IT	47	10	21	78	113	69.03
Total	104	99	21	224	367	61.03

From the year 2013-14 University has implemented grading system.

Grade	O	A	B	C	D	F	Total Pass	Total Appeared	Passing Percentage
Chemistry	0	15	16	9	0	30	40	70	57.14
Botany	0	7	11	0	0	2	18	20	90
Zoology	0	13	11	1	0	1	25	26	96.15
Physics	0	10	6	2	0	17	18	35	51.43
Maths	1	8	0	0	0	10	9	19	47.37
Statistics	2	8	10	1	0	4	21	25	84
Biotech	2	14	12	0	0	4	28	32	87.50
Micro	1	4	1	-	-	4	6	10	60
CS	-	5	9	-	-	7	14	21	66.67
IT	4	32	29	9	2	41	74	117	63.25
Total	10	116	105	22	2	120	253	375	67.46

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

- ✓ The faculty motivates students to pursue higher education.
- ✓ Industrial visits, on-job training, personality development seminars etc. are arranged to inculcate skills and qualities required by the job market.
- ✓ Career and Placement Cell acts as an incentive for students by offering attractive job-prospects.

- ✓ Introduction of job oriented courses like B.Sc. in – Biochemistry, Microbiology, Biotechnology, Computer science, Information technology.
- ✓ Diploma courses and certificate courses.
- ✓ Inculcation of research aptitude –research scholar programme.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

BNBCS takes special efforts to ensure that students do not fail and become drop outs.

- At the departmental level each teacher /HOD personally interacts with the student to motivate him/her to study. During Parent – Teacher meeting the parents are informed about the performance of their ward.
- During practicals extra attention is given.
- Remedial lectures, Test series are conducted in many departments.
- Financial Assistance: Book Bank facility,
- Phone calls are made to parents to caution them about their ward’s behavior.
- If required students referred counselor to get advice regarding to academic failure, inferiority complex ,lack of motivation , inattentiveness , etc
- Many a time the possible drop out of students may be due to financial reason. In such cases financial support is provided to students by various means including personal finance or permission by the principal to pay the fees in installments.

5.3 Student Participation and Activities:

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

The college with the assistance of Gymkhana committee, Cultural committee , Literary association, NCC, NSS, DLLE and other committees makes available the following range of extracurricular activities.

Table 5.3.1_(1) Co-curricular and Extracurricular Activities

Departmental Club	At least two programmes are managed by the per year by each departmental club.
Friends of Library	Book exhibitions/poster display to celebrate special days.
Cultural	Dance, singing, Fashion show, Group activities, Fine Arts,Annual festival etc. Motivation to participate in intercollegiate competitions.
Sports Activities	Indoor and outdoor games, Athletics. Annual-Sport’s Day. Motivation to participate in intercollegiate / University level events.



NSS	Blood Donation, Tree Plantation, Social Awareness Rally on various issues like AIDS, Thalassaemia, Environment issues
NCC	Personality development and Discipline
Literary	Essay Writing, Elocution, Letter writing, Debate,
DLLE	Training for Entrepreneurship.
Leadership	GS, LR, secretary, Joint Secretary of all the clubs and association, member of students' council
Excursion and Industrial visits	Within Mumbai, Maharashtra and all over India
Research Projects	Mini Research projects for all class students in a group
J-BNB	College Annual E-Journal
Research Scholar programme	For bright students to get well verse with Research activities
Paper Presentation Conference / Seminar	Every year one National Conference and 2 Workshops prior to that Conference.
Magazine and wallpaper	College Magazine Sanyuja & periodic wall papers on socio- economic issues
Journal Club	Reading and presentation of Journal articles
Movie Club	Discussion on Movies shown on various topics.

These programmes and activities are conducted as per the schedule given in the calendar.

Table 5.3.1. (2) Participation in Sports activities for last four years College level

Year	2010-11	2011-12	2012-13	2013-14	2014-15
Badminton					
Singles	46	48	37	50	49
Doubles	27	33	35	32	40
Mix Doubles	24	24	25	19	22
Table Tennis					
Singles	45	40	26	22	25
Doubles	20	29	22	13	24
Mix Doubles	10	12	16	8	14
Carrom					
Singles	72	72	59	59	70
Doubles	70	70	64	47	68
Mix Doubles	40	45	38	28	30

Chess					
Chess	48	24	22	42	38
Athletics					
100 mts.	36	47	39	62	60
200 mts.	40	41	34	56	54
400 mts.	33	39	32	43	46
800 mts.	18	30	26	27	42
1500 mts.	9	21	17	22	41
Discus Throw	21	30	19	27	40
Shot Put	22	32	23	34	41
Long Jump	43	38	34	42	55
Total	222	278	224	313	379
Grand Total	640	680	568	633	729

Table 5.3.1(3) Participation in cultural activities College level:

Year	2010-11	2011-12	2012-13	2013-14	2014-15
DANCE					
Solo	23	29	35	48	24
Duet	8	8	12	14	13
Group	55	60	58	61	18 (groups)
Personality Development	135	135	145	150	40
Singing					
Solo	40	54	40	39	42
Duet	10	8	12	6	7
Instrumental	8	4	3	2	-
Fashion Show	42	56	96	104	96
Fine Arts					
Rangoli	60	64	58	60	38
Mehendi	70	66	82	110	67
Bridal Make-up	8	10	8	10	18
Bride Groom	8	0	0	0	0
Hair Style	13	8	8	6	20
Photography	13	15	18	12	32
Poster Painting	7	12	6	10	66(greeting card)
Cartooning	8	7	4	4	23
Love letter writing	16	17	17	22	45
Nail Art	NA	7	9	7	19
Tattoo Making	NA	8	7	10	19
Flower Arrangement	10	3	9	7	9

Vegii Art	6	8	7	10	28
Mono Acting/ Mimicry	5	7	12	20	16
Treasure Hunt	NA	30	49	58	464
Total	548	616	695	770	1072

Participation in Literary Events: Through Literary Association at BNBCS various competitions like essay writing, story writing, poem writing are conducted. Students are motivated to participate in various such competitions held in other colleges.

Table 5.3.1(4) **Participation in Literary Events:**

Activities	2010-11	2011-12	2012-13	2013-14	2014-15
State level	17	98	72	123	112
University level	-	04	01	09	4
Intercollegiate	19	07	03	16	72
Local	-	10	-	38	64
College	151	269	160	264	166

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.

Table 5.3.2(1): **Notable achievements in Extra Curricular Activities:**

Sr. No	Name of the student	Activity organised by	Achievement
2010-11			
1	Mr Kalpesh Rajpurohit	Bhawan's Bhagwat Swaroop Agarwal Memorial Essay Competition	2 nd Prize in Essay
2	Mr Kedare Pramod Jayesh	Script Reading Competition	1 st Prize in Script Reading Competition
3	Ms.Tanvi Gujuran	Essay Competition Anti Dowry Movement	1 st prize State level Intercollegiate Competition
4	Ms. Mrudula Sawant	JUDO	Gold Medal for District level
5	Mr. Omkar Sanjay Davate	CHESS	Gold Medal for District level & 7 th Position at Division level.
6	Mr. Vaibhav Jadhav	100 mts. RUN	Silver Medal for District level



7	Mr. Alock Gupta	LONG JUMP	Silver Medal for District level
8	Mr. Siddheshwar Jagadale	Sikai Marshal Art	Gold Medal in for District level
2011-12			
1	Mr. Kuluth A Kapde	Intercollegiate Harmony, Adarsha College, Badlapur	1 st Prize in Pen Down Your ideas
		Bhagwat Swarup Agarwal Essay Competition, Bharatiya Vidya Bhavan, Mumbai	2 nd Prize in Essay Competition
2	Ms. Supriya Ukirde	State Level Essay Competition	3 rd Prize in Mumbai Division
3	Mr. Rupesh Gogawale	State Level Sahitya Sammelan for College Students	1 st Prize in Photography and Poem Competition
4	Mr. Vaibhav Rokade	State Level Competition (MCQ) Gandhi research foundation, Jalgaon	First prize & Gold Medal at District Level
5	Ms. Vidya Gore	State Level Competition (MCQ) Gandhi research foundation, Jalgaon	3 RD Prize & Bronze medal at District Level
6	Mr. Gagan Prasad Narbahaddar Thapa	Thal sainik Camp, NCC, New Delhi	Silver Medal in Map Reading
7	Mr. Durgesh Gupta	Bionics, Institute of Science	2 nd Prize in Poster Making
		Biotrek, Talik College of Science and Commerce	1 st Prize in Poster Making
		Mantra, NES Ratnam College	1 st Prize in Poster Making & 3 rd Prize in Book Mark
		Biofiesta, Institute of Science	2 nd Prize in Paper Bag Making
		Rang Tarang, R.J.College of Arts, Commerce & Science	1 st Prize in Tattoo Making, Cartooning Arms Designing
8	Mr. Nikhil Sarnobat	Intercollegiate Athletic Meet, University of Mumbai	Bronze Medal in High Jump
		27 th National Junior Athletic Championship, Ranchi	8 th Rank in High Jump event.
9	Mr. Akshay Jadhav	Intercollegiate Athletic Meet, University of Mumbai	Bronze Medal in Power lifting
10	Mr. Farswan Darshan	10 th National Football Championship, Goa	Silver Medal Best Goalkeeper of the Tournament



11	Ms. Mrudula Sawant	JUDO	Gold Medal for District level & Bronze Medal in Division Level.
12	Mr. Alock Sao	Athletics 400mts Run	Silver Medal for District level
2012-13			
1	Ms Suchita k Dangle	4 th Asia Inter Continental World Union Karate Federation Championship 2012	2 nd Rank in group Kata 3 rd Rank in Individual fight.
2	Mr Sohan Siddeshwar Jadhav	University State Level Power Lifting (Group 83 KG).	Bronze Medal in Power Lifting (Group 66 KG)
3	Mr Sameer Jagtap	University State Level Power Lifting	Bronze Medal in Power Lifting
2013-14			
1	Mr. Abhay Kadam	Indian Army	Selected for Officer Cadre in Indian Army.
2	Ms. Akshada Anil More	Gandhian Philosophy examination	Bronze Medal
3	Ms. Gayatri Badarmen	Inter college Judo competition , University of Mumbai	Bronze Medal
4	Ms. Prajakta Shingte	Inter college carrom competition , University of Mumbai	Bronze Medal
5	Ms. Jagdale Aarati	Judo, Kickboxing & Taekwonko	Bronze Medal in district Level
6	Ms. Chawathe Ashwini	Table Tennis	1 st Rank in district Level
7	Ms. Apte Bhairavi	Table Tennis	2 st Rank in district Level
8	Mr.Siyal Amish	Swimming	1 st Rank in district Level
9	Ms.Pawar Shraddha	Swimming	1 st Rank in district Level
10	Mr. Varun Vaikar & Ms.Neha Gupta	Chess	1 st Rank in district Level
2014-15			
1	Ms. Rina Mane	Boxing Competition	Silver Medal at University level
2	Ms. Ketki Gokhale	Gymnastics Competition	Gold Medal at University level Bronze medal for All India

			level Participation in University Team which won silver medal at All India Level
3.	Ms. Mrudula Sawant	Judo Competition	Bronze Medal at University Level
5.	Ms. Sonali Vidhate	Easy Competition	5 th prize in easy competition at Dahanukar College
6.	Ms.Ravli Medi	Classical Solo Dance	1 st Prize at Youth Festival-University of Mumbai
7.	Mr. Nikhil Thombre & Group	Fashion Show	1 st Prize At Ratnam College 2 nd Prize at IBS Management College Powai.
8.	Mr. Sangram Bhonsle & Group	Treasure Hunt	1 st Prize at IBS Management College Powai. 2 nd Prize at Digvalay
9.	Mr. Rishikesh Mulye	Photography	3 rd Prize at Gandharva Inter collegiate Festival
10.	Ms.Pradnya Mane	Photo Essay	3 rd Prize at Gandharva Inter collegiate Festival

Table 5.3.2(2) Achievements in NCC

Sr.No	Name	Achievement
2010-11		
1.	SUO Anup Tirpude	Durve Memorial Trophy and Gold Medal (Best Cadet)
2.	JUO Vishal Gupta	Durve Memorial Trophy and Gold Medal (Best Cadet)
3.	Cadets Ajay More, Satish Shelar and Vishal	The Trophy for Best Group Song at the 3rd ATC.
4.	CQMS Ganesh Panda	Coy. Commander's Medal for leadership in ATC.
2011-12		
1.	JUO Gangaprasad Thapa	Was selected as a team member to represent Maharashtra NCC directorate at National Level TSC Camp at New Delhi
2012-13		
1.	Momin Ali Ahmed	Best Anchor Award at NIC Panchgani
2.	JUO Gajanan Patil	Part of Award Winning dance group at NIC Panchgani Part of team that won Best Pilot and Best Tent

		Pitcher at ATC Camp in Mumbai Selected for the 2013 Republic Day Parade and Camp at New Delhi
3.	Prakash Sahani	Part of team that won Best Pilot and Best Tent Pitcher at ATC Camp in Mumbai
2013-14		
1	Abhijeet N. Barse (S.U.O)	'A' Grade in Army Attachment Camp
2.	Rushabh D. Upadhyay (J.U.O)	'A' Grade in Army Attachment Camp
3.	CDT.Kaustubh S.Jagtap	'A' Grade In Army Attachment Camp.
4.	CDT. Rakesh D. Pawar	'A' Grade In Army Attachment Camp.
5.	CDT. Aniket S. Tupe	i) 'A' Grade In Army Attachment Camp.
6.	CDT. Nitesh C. Naik	i) 'A' Grade In Army Attachment Camp.
7.	CDT. Rahul G. kaware	i) Excellent Category in 2.4 km.PPT at Ahmednagar Army Attachment Camp.
2014-15		
1.	Aniket A. Kshirsagar (J.U.O)	i) Silver Medal in NIC. at Kerala ii) 'A' Grade in Army Attachment Camp
2.	CDT.Sudeep V.Sawant	i)1st Prize In IGC Camp At Amravati In Advance Rifle Shooting ii) Represented Maharashtra Directorate In National Level At Delhi (TSC 2014) iii) 'A' Grade In Army Attachment Camp.
3.	CDT Akshay D. Patil	Silver Medal In Cultural Activity at Nasik.

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

Our students and stakeholders are mostly concerned with science stream. We continuously try to be in touch with our students and stakeholders through suggestion box, complaint register, e-mail, direct communication etc to improve further and take more quality enhancement measures.

During PTA meetings parents give the feedback and suggestions which are considered. IQAC conducts Survey when students are asked to give feedback regarding teaching and all the facilities available in the Institution. By analyzing this feedback the points are noted where improvement is essential then the measure are taken to improve those services.

Faculty members are asked to fill up self appraisal forms, where they can give their opinion for improvements. Staff members' representatives are members of LMC. During the LMC meeting staff members' difficulties are discussed and are resolved.

The Principal also has a regular interaction with the staff members and their feedback is used to overcome the limitations in overall functioning of the institution.

Students are also asked to express their views and share their experiences in students' council meetings.



5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications / materials brought out by the students during the previous four academic sessions.

The magazine committee arranges the activities throughout the year. The wallpapers are displayed based on certain themes like poems, essays and articles on topics like bomb blasts, social issues, social discourse, etc. Cartoon competition, short story competitions are arranged through this committee. Publishing the annual magazine "SANYUJA", gives students a way to express their creative writing potential. Our management publishes a magazine "Disha" in which students' articles are included.

Students do projects on various topics and present project reports which are compiled by Science Square Committee, as 'Mini Research Project.'

While doing research projects, students are motivated to publish papers and these papers are published in our online J-BNB or if the papers are presented in the Conference, then those are included in the Conference Proceedings.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

YES. The Institution has a duly formed student council as per the guidelines of the University of Mumbai. The Principal is the Chairperson of the students' council. The other members include Vice-Principal, NSS Programme Officer, NCC Officer men's wing, women's wing, Student representatives of the various committees, the General Secretary of the students and the Gymkhana Secretary. The college does the funding.

The student council plays major role in planning and execution of curricular and extra-curricular programmes and redressal of grievances, if any and students' effective participation in day-to-day working of the college.

The student council organizes various student related activities on days like Tie day, Saree day, Traditional day, Denim day, Rose and Chocolate day, Sports day Annual day etc.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

Table 5.3.6(1) Student's participate in all the activities conducted by college.

SR. NO.	ACADEMIC/ ADMINISTRATIVE BODY	ACTIVITY
1.	Student council	To plan and conduct various activities throughout the year. To represent students problems and try to get solution after discussion with senior leaders.
2.	Departmental clubs	To plan and organize club activities.
3.	Admission committee	To help candidates to fill on-line admission forms.
4.	N.S.S	To volunteer activities on 15th Aug, 26th Jan and on college days
5.	N.C.C	To volunteer activities on 15th Aug, 26 th Jan and on college days
6.	Cultural committee/Dramatics/ Literary Association	To plan, organize various cultural events/Dramatic / Literary events. To motivate students to participate in these activities.
7.	Gymkhana committee	To plan and conduct sports events.
8.	Magazine committee	To display wall papers on current issues. To collect articles for the magazine.

During the annual prize distribution, GS sends the invitation to all dignitaries and address the prize winning students.

During all the activities conducted in the college like workshops/ Seminars/ Independence Day celebration/ Republic Day celebration students work as volunteers.



5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

To collaborate and network with the ex-students at the institutional level BNBCS has established an Alumni Association called “Anubandh”.

The registration form for the past students is made available on line so that the past students can register from any where in the globe. Yahoo group is created for alumni namely “anubandha@yahoogroups.com”.

- Annual Alumni meets are organized for interaction.
- The alumni who were active in NCC and NSS join us in our celebrations like Independence Day, Republic Day.
- Whenever job opportunities are available our alumni contact us and inform us
- Alumni are invited as chief guest for delivering special lectures on emerging areas.
- Our alumni bring their ward to join our Institutions which reflects their institutional loyalty.
- Some of our alumni are in the field of dramatics and films, who have helped students by directing dramas for various competitions and even giving chance for acting in a movie.
- Former faculty is invited for functions organized by the college or by individual departments.
- Former faculties are also invited to deliver guest lectures.

Any other relevant information regarding Student Support and Progression which the college would like to include.

Students Satisfaction dimensions (ref: Quality Education in Higher Education- An Introduction Published by NAAC) and the methods adopted in our Institute to handle them.

Dimensions	Methods used to address
Reliability:	Admission process is transparent. No donations. All rules are strictly followed. Availability of Array of courses at UG and PG level. Syllabus is taught completely.
Responsiveness:	Punctuality in conducting lectures. Syllabus is completed in time. Teachers are available to solve difficulties. Students are encouraged to participate in extra curricular activities.



Understanding customers:(Students)	Family culture in the college. Mentor System.
Access:	Teachers are available to solve difficulties. Study material is made available on Digital Repository.
Competence:	Qualified and competent Staff is recruited as per University norms through proper channel.
Communication	Open door policy followed by all teachers. Web mail and e- notices/notice boards. Web site is updated regularly.
Security:	Smart card system for entry in the college. CCTV camera. 24X7 watchman at the main gate and college building.
Performance:	Extra guidance is given to bright students as a result we see our students as Rank holders at University level. Remedial lectures are conducted for weaker students so to improve overall performance.
Completeness:	For overall growth many co curricular and extracurricular activities are conducted and students are encouraged to participate.
Tangible:	Updated instruments are available. Computers with Free internet service are available. Upgraded library with reading room facility.
Flexibility:	To fill the gap between curriculums prescribed by University and current trend, certificate courses are conducted. To promote research culture; Research Scholar Academy programme for F.Y. and S.Y. students is initiated.
Redress:	WDC and Grievance redresser cell looks in to the grievances regarding sexual harassment and ragging.
Courtesy:	Mentor system. Appointment of Counselor.

A leader is one who knows the way, goes the way, and shows the way.

~ John C. Maxwell



CRITERION - VI

GOVERNANCE, LEADERSHIP





CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership:

“Leadership is the capacity to translate vision into reality.” – Warren Bennis. Our leadership endorses teamwork that is the ability to work together towards a common vision, and to direct individual accomplishment towards organizational objectives. All our academic and administrative units are governed by principles of participation and transparency. As Science advances, technology develops; resulting in various modern products, but someone has to convert that technology into a product, so that it reaches all. Our leadership has taken innovative decisions to start various value based self-finance courses that make the students capable of facing global competition.

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution’s distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution’s traditions and value orientations, vision for the future, etc.?

The education that leads to skill development and subsequent employability is necessary, but at the same time, values inculcated in youth would help in building a great nation. The youth today is under the unbearable burden of competition in academics, forcing them to trace on book based studies. Now it is up to us, to make them adapt to value based education. The main objective of education is to inculcate the right values along with knowledge, among students so as to cultivate a spirit of co-operation, selflessness and mutual understanding, as they are the future Nation builders.

The mission of our management is “*p`jvaailatao &anamaya: p`idp:*” - means - *The Lamp of Knowledge has been lit.*

The objectives of VPM are:-

- To provide the people residing in the Thane city and its vicinity, facilities for their intellectual, physical, scientific, social, cultural and professional education, to give publicity for the same, to establish and operate conducive factors for the above, e.g. parent-teachers association, stores for educational supplies, and thereby adding to the knowledge of the people.
- To emphasize the need for industrial knowledge and for the purpose of providing educational facilities for the same, to start and operate various undertakings such as educational institutes, Polytechnic, Law, Management, Engineering Colleges, etc.
- To co-operate with other public institutions on special occasions with a view to attaining the above mentioned purpose.



All the activities of the college are planned and executed keeping in view the mission and objectives of the management.

There is need for providing quality education to the young generation who would be the architects of future India. One should keep in mind that individuals are not mere building blocks but builders of society. The purpose of education should be, to prepare men & women who are well informed knowledge wise and understand the values of life. BNBCS is proud to state that Vision and Mission statements are based on the elements of National policy of Education. It says –

Vision: *Imparting quality education in science.*

Mission: *To mould students into rational thinkers, competent workers and socially aware citizens.*

The goals of BNBCS are based on its Vision and Mission

Goals :

- Providing homely environment in the institution.
- Developing students into socially responsible citizens.
- Promoting research culture.
- Developing a craving for equality and cooperation.
- Continuous personal and professional growth.
- Installing moral values to mould the students into excellent human being.
- Nurturing aspirations and facilitating unremitting learning.
- Providing them access to a comprehensive array of careers in Science.
- Attaining greater heights of glory and excellence in life.

The college has planned and executed all its Academic and Administrative Reforms in tune with the vision and mission statements of the college.

- Co-curricular & Extra-Curricular Activities are planned with determination to enhance overall personality of the students for which their active participation in every programme is encouraged.
- The programmes to inculcate values and sense of social responsibilities are planned and executed through NSS, NCC, “Jagar Janivancha” with community involvement.
- The various associations and clubs organize several activities geared to discover the hidden talents of the students and promoting their skills.
- Seminars, Workshops and lectures are conducted for developing research culture among students and teachers.
- Academic ambience and infrastructural facilities are augmented to refine teaching learning and research culture.
- BNBCS being the coeducation system both the sexes are treated equally for education and not only that but though our college does not belong to Minority, many students from minority families take admission in BNBCS.



- The campus is full of trees protecting the environment and inculcating the same on minds of students through many of our activities.
- At BNBCS we try to achieve our goals through the dedicated efforts of teaching staff, cooperative non-teaching staff and very strong and supportive management.

The institution has also integrated certain **core values**

Core Values & their relation with mission and goals:

- Visionary leadership
- Student-centered excellence
- Organizational and personal learning
- Agility
- Focus on the future
- Managing for innovation
- Societal responsibility
- Focus on results and creating value

In addition to the new courses, an array of opportunities is provided to the students for realizing, maximizing and actualizing their potentials. The regular and innovative co-curricular and extracurricular activities of the college act as an effective means of value inculcation, character formation and social reformation. BNBCS is the only single faculty science college under UOM so the college aims at instilling scientific zeal and research culture. Through its three fold system i.e. academic, co-curricular and extra-curricular programmes, the college tries to promote the sense of ethics and leadership potential and sensitize them towards inclusive social concerns, human rights, gender and environmental issues.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

VPM and BNBCS believe that *“Coming together is a beginning. Keeping together is progress. Working together is success.”- Henry Ford.*

The top management is highly responsive, plans in a meticulous manner to utilize the resources optimally. The empowered team of Principal, Vice Principal's, IQAC members, teachers and supporting staff and students help in design and implementation of quality policy and plans. The successful implementation of quality policy and plans is due to Excellent communication at all levels, very cordial relationship of the management with the Head of the institution, and healthy relations of head of the institution with staff and students.

Leadership at BNBCS begins with Senior Leaders' (SLs) role in setting the tone for Performance Excellence with students and community in focus. BNBCS follows the approach of Participative leadership which enables smooth deployment of the quality plans. Open Door Policy, Feedback from stakeholders and Focus on Future are



incorporated in the design, implementation and execution of the policies. The guiding core value for institutional governance is creating conducive environment for individual development, institutional development and eventually societal development. The approach is not to emphasize hierarchical system of high control and top down orientation but to have a horizontal system of management with shared control orientation and delegation of power and responsibility.

The role of top management in implementing the policy:-

Every employee is encouraged to take up new challenges: The office staff and teaching staff are encouraged to take up higher studies, research projects

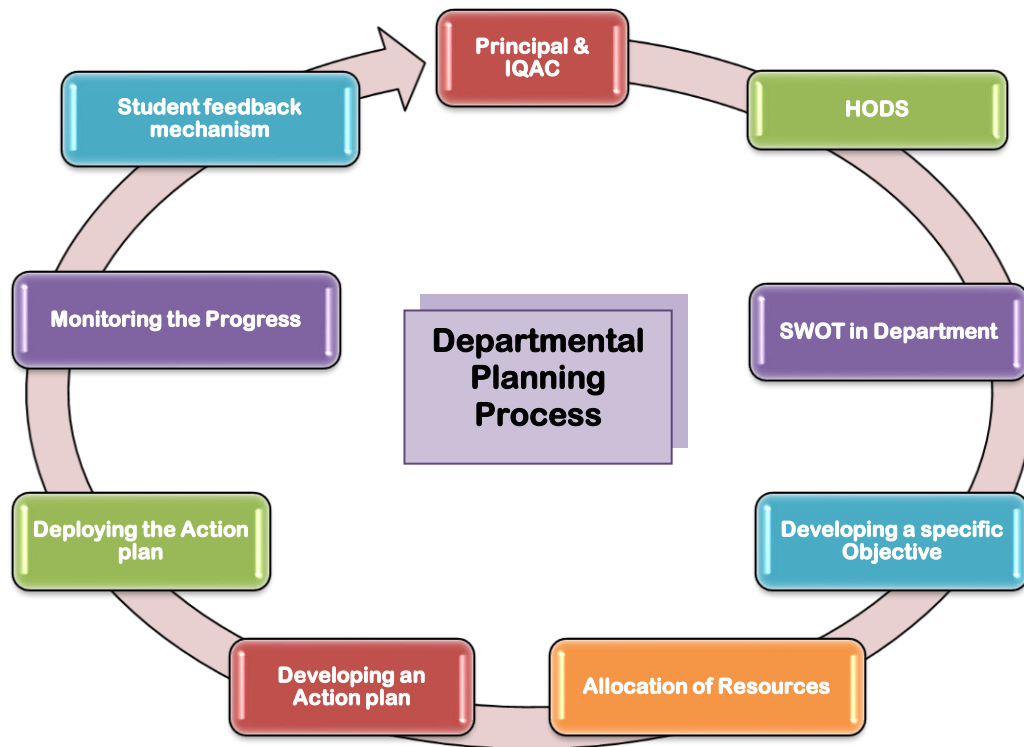
The staff is encouraged to take up multidimensional roles: In addition to the conventional roles, the staff is motivated to take up multiple roles as leaders in different areas of institutional development like health, extension work and overall development of students.

Transparency encouraged at all levels: Decisions are taken in consultation with key functionaries- Principal, Vice principal, IQAC coordinator, Heads of Departments, In charge of Departments, Coordinators of respective committees, Office superintendent and Librarian.

6.1.3 What is the involvement of the leadership in ensuring:

- **The policy statements and action plans for fulfillment of the stated mission**
The leaders follow a democratic and participative style of leadership, soliciting the total participation and active involvement of both teaching and non-teaching staff. The head of the College has long term vision for both, academics and administration. She guides, initiates, persuades and convinces the staff to actively involve themselves in realizing the goals and objectives of the Management of the College. In addition to this, she also co-ordinates with outside agencies like University authorities, UGC, Joint Director's office and other government bodies to comply with necessary regulations. The Principal also follows an open door communication system and often allows the staff to come up with their constructive suggestions and grievances if any and goes out of the way to address them. The policy statements and action plans are formulated by the Principal after careful consideration of all views.
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
The action plans for operations are prepared under the supervision and guidance of the Principal and Heads of the Departments. Teaching Plans, time table arrangements, various committees are initiated into their defined roles in formulating and achieving the strategic plan.

Fig 6.1.3.(1) The Strategic planning at departmental level takes place in the following manner.



- **Interaction with stakeholders**

The leader ensures that all stakeholders are involved in its activities. Students, being the main stakeholders are treated as the centre of all activities and many curricular and co-curricular activities are conducted for their benefit. The College interacts with the parents of the students. The College maintains a continuous communication with the stakeholders.

Table 6.1.3 (1) Interaction with Stakeholders:

Voice of Customer /Stakeholders	Listening method
Students	<ul style="list-style-type: none"> i. Principal communicates with students during Inaugural lectures ii. Principal and HOD's follow open door policy for all stakeholders iii. Suggestion boxes are kept for students problems iv. Mentor system is developed, in which teacher handles twenty students, students discuss their problems with the mentor teacher v. Counselor for Students vi. Students feedback collection through IQAC vii. Students' Council viii. Various committees meeting
Management	<ul style="list-style-type: none"> i. Meetings with Principal ii. Meetings with HODs iii. College committee & LMC meetings iv. IQAC meetings v. Communication via e-mails
Faculty/ Staff	<ul style="list-style-type: none"> i. Staff meetings ii. Principal and HOD's follow open door policy iii. College committee & LMC meetings iv. Complaint Register v. Communication via e-mails
Parents	<ul style="list-style-type: none"> i. Regular parent teachers meeting by department ii. Principal communicates with parents of all UG, Junior college students iii. Special talk with parents of defaulter students iv. open door policy followed by Principal and teaching staff
Alumni	<ul style="list-style-type: none"> i. Communication through Past students group Anubandha ii. Interaction as representative & members of IQAC iii. Interaction sessions with the concerned departmental teachers & the current students iv. Suggestions through mail or with direct communication with Principal
Community people/ Associates	<ul style="list-style-type: none"> i. Interaction during meetings of community representative as members of IQAC ii. Suggestion from visiting Academicians and people from industry iii. Regular dialog with Suppliers, Book Dealers, banking people, NGOs like Hariyali, Ambika Yoga Kutir. iv. Associates work with NSS- TMC, ANIS v. Communication with neighboring institutes vi. Communication via e-mails



- **Proper support for policy and planning through need analysis research inputs and consultations with the stakeholders**

The College leadership agrees to understand the needs of the society through its interactions with University, UGC and other academic authorities. It extends full support to all the new initiatives of these authorities. It also conducts regular feedback of students, parents and local authorities to frame plans. The policies are framed according to the experiences of the past years. The management fully supports any new plans for the benefit of its stakeholders.

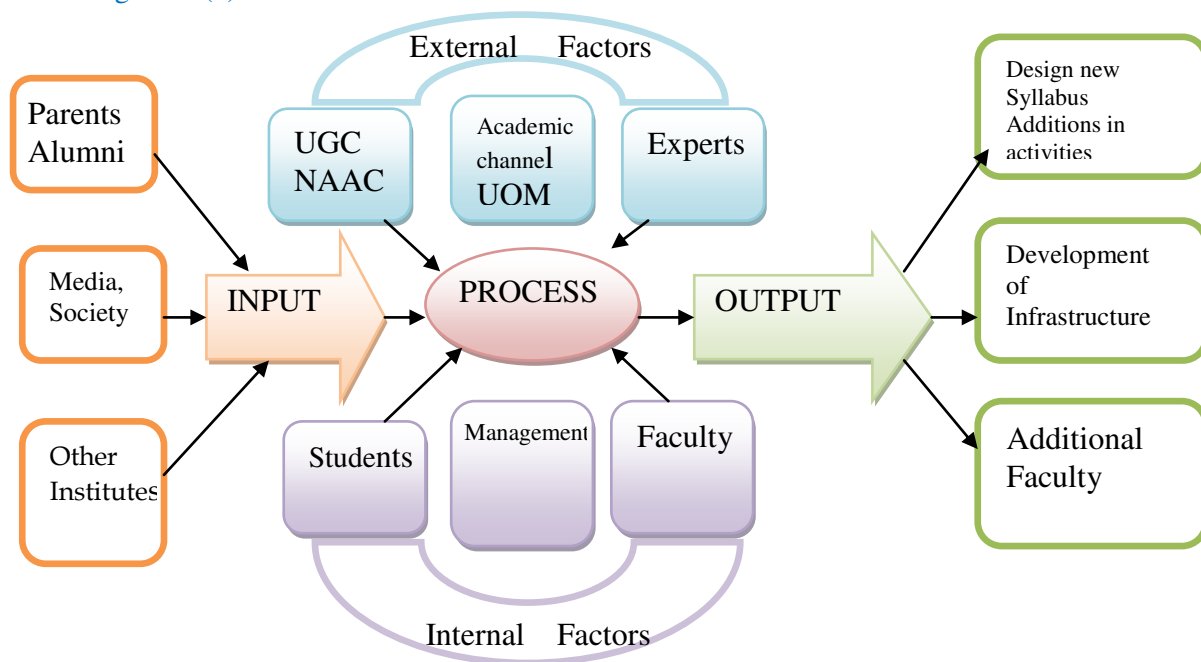
- **Reinforcing the culture of excellence**

For this leadership forwards the applications of teachers for awards to Academic bodies giving the awards. As a result many of our teachers received “Best Teacher award, excellence awards Our leadership create atmosphere and culture of excellence by providing state of art infrastructure, ideal library having treasure of valuable books, well equipped laboratories and gymnasium for aided and unaided staff. As recognition of these efforts we have received “Best College Award” by UOM and RBNQA Quality award by IMC which ensures that we are on the right track towards achieving excellence.

- **Champion organizational change**

The College pioneers in the field of changes in organizational set up by becoming an outward looking organization with focus on benchmarking against the best. From being an organization of growth and progress in the academic field, it is looking towards a more active role in the society with encouragement to deserving and special students. We have combined our focus on academics and extra-curricular activities. We are now giving more emphasis on sharing of knowledge and learning through seminars, conferences at national and international level. BNBCS voluntarily opted for NAAC accreditation as early as 2003. The College is always open for change in policy and also helps other colleges in their quest for excellence.

Fig. 6.1.3(2) Innovation for Excellence



6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

BNBCS has a duly constituted Local Management Committee; College Committee etc. which enable the Management/ Head of the institution to get adequate information in order to review the activities of the College. Staff members have to fill in the Academic Performance Indicators (API) forms annually according to UGC regulations. The Head of the College gives them constructive feedback regarding the same. Monthly staff meetings are held to take stock of the activities undertaken by the various Committees. IQAC plays an important role in monitoring and evaluations of the plans.

The senior leaders hold regular meeting to review the progress of the students.

- The academic session begins with the meeting of the Principal with all the staff members.
- Then individual departments meet the Principal to discuss the plan of their departments for the year. The HOD's conduct departmental meeting to discuss about the teaching plan, requirements of learning resources.
- An academic calendar is drawn and reviewed monthly.
- Teaching methods like the chalk and talk is supplemented by more interactive learner oriented techniques like seminar, role play, quiz, case studies, projects etc. ICT enabled teaching is practiced to make the lesson interesting and visuals have a

greater impact on the learner. This has been possible by strengthening the learning resources in terms of library stocks and audio visual aids.

- The internal quality assurance cell (IQAC) of the college functions as a think tank to compile the suggestions and develop an annual action plan. There are regular meetings of the IQAC. Student feedback is collected analyzed and shown to the respective teachers for improvement. This has definitely improved the performance of the teachers.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

Academic leadership is provided to the faculty by setting up an example by the top management. Academic excellence is ensured at all levels ensuring a lifelong learning experience.

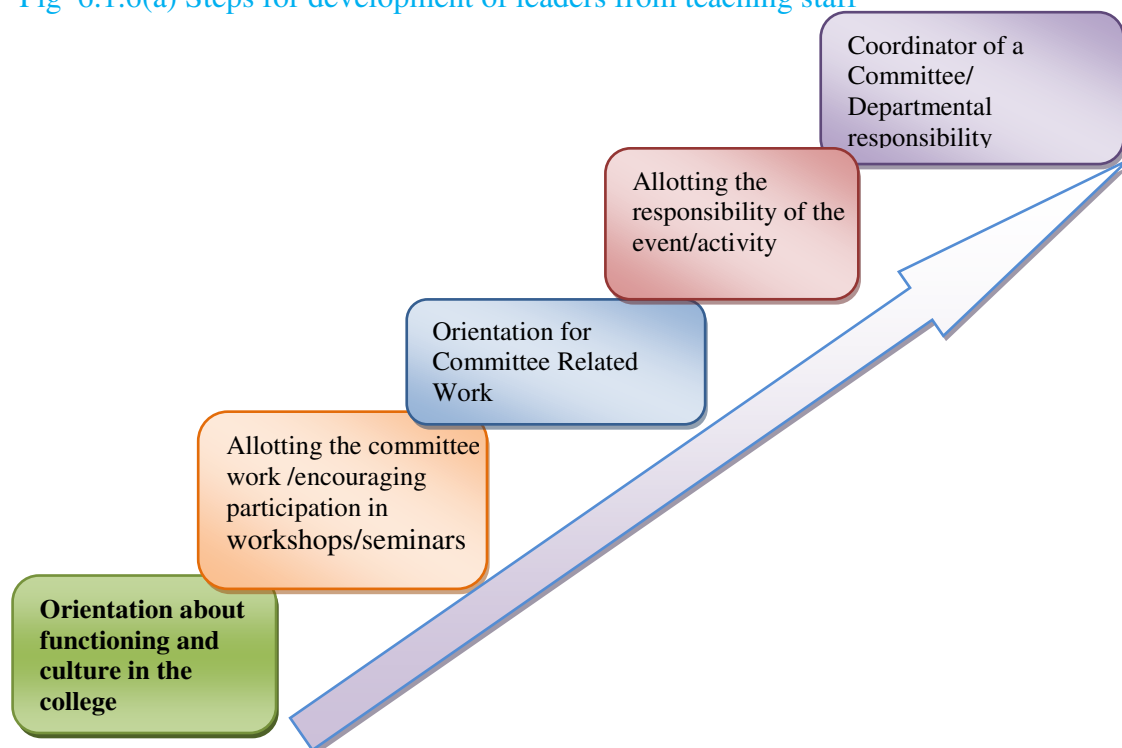
- The top management firmly believes in “Leading by doing.”
 - ✓ Our management Vidya Prasarak Mandal always encourages the staff and students to implement new ideas. They provide every support for infrastructural development necessary for the new need based courses that have been introduced.
 - ✓ To cope up with the modern educational requirements VPM has installed Video Conferencing facility in our college campus.
 - ✓ In the Era of globalization our management has signed MOUs with California University, U.S.A. and Northern college of Applied Arts and Technology, Canada & University of Skovde located at Hogskolevagen, Sweden. Vidya Prasarak Mandal has launched VPM's London Academy of Education & Research in London on 26th May 2009.
- The management is keen on sustenance of quality in education. Management had organizes many programmes on the campus.
 - 👍 Workshop for HODs and senior leaders-“Rising above and beyond excellence”, was organized in collaboration with Management Institute. From our college 18 staff members attended the same.
 - 👍 International conference on “Bhaskara-900” was organized to pay the respect to Bhaskaracharya during his 900 – birth anniversary year.
 - 👍 14th April is observed as “*smritideen*” of our beloved president late Dr.V.N.Bedekar.
 - 👍 Foundation Day is celebrated on 1st August. On this day all the Principals of institutes run by our management present annual report of the institute.
 - 👍 “Sanskrit day” is celebrated every year.
 - 👍 As per the tradition of our management, Teachers' day is celebrated on 5th Sept. by felicitating teachers who have completed 20 years of service in the institute.

- 👍 Our management organizes the musical concerts of eminent artist every year.
- 👍 Our management publishes bi-monthly magazine “Disha”.
- The Principal has taken initiative in promoting research culture; this is reflected in the research output in several departments. Several Faculty Members are pursuing research, taking up projects, attending Seminars / Conferences and publishing papers.
- Principal as Head of institution believes in teamwork, cordial inter personal relations, delegation of authority and participatory decision making, thus functioning in a democratic manner.

6.1.6 How does the college groom leadership at various levels?

The workforce learning and development system starts with orientation of new faculty by the head of the Institution and Head of the department through sessions on technology support for the teaching learning process, ethical behavior and institutional practices. Knowledge is transferred through mentoring by the senior staff. Seniors work with their colleagues to develop an educational plan that supports individual goals as well as organizational plan and goals. There is systematic succession plan in place which builds leaders at all levels and ensures sustainability. Work rotation ensures that there is bench strength and transition is smooth.

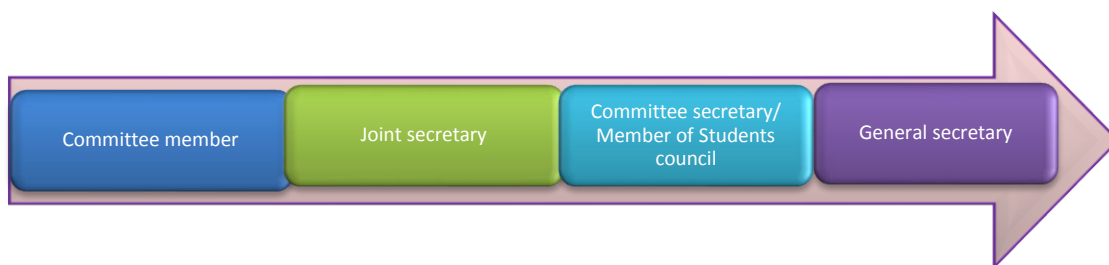
Fig 6.1.6(a) Steps for development of leaders from teaching staff



BNBCS succession plan builds leaders at all levels and ensures sustainability.

At the level of students , some committees like cultural committee, College Magazine Committee, Women Development Cell, Library Committee or NSS Local Advisory Committee have a formal representation of students where they are motivated to express their views and participate actively in the decision making process. Also the members of the Student Council of the college are provided with a number of opportunities to prove their leadership qualities. The NCC and NSS units of the college also play a vital role in leadership development by sending optimum number of cadets and volunteers to participate in leadership training programmes or international / national level activities like Youth Exchange Programmes /Republic Day Parade in New Delhi.

Fig 6.1.6 (b) Steps for development of leaders from students.



6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

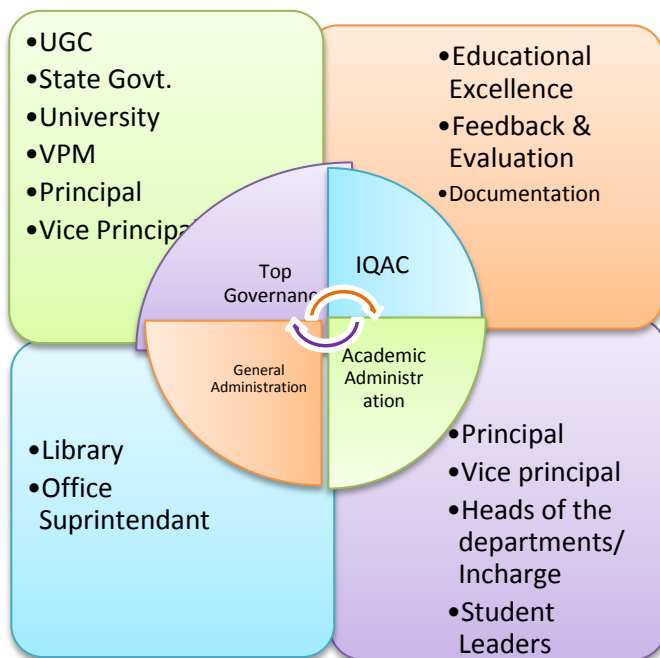
The administration is participatory and hence decentralized. The Principal collaborates with departments to improve and maintain the qualitative standards of the institution.

A decentralized functioning mechanism empowers the departments to function with a greater flexibility and at the same time they share the responsibilities.

Each department has a departmental head who is delegated the powers to look after day to day functioning of the department including time table, workload, syllabus completion, internal evaluation of papers , departmental purchases etc. Departments are provided budget for their recurring and non-recurring expenses and also for purchase of library books. They spend the amount judiciously as per the requirement and approval of the purchase committee. Departmental heads also delegate work to their colleagues to ensure smooth completion of work in the expected time frame .Student representatives

are appointed in the different committees to make them feel involved in the functioning of the institution. The decentralized system enables delegation of power to various bodies as explained in the following Figure:

Fig 6.1.7(1)participative administration



6.1.8 Does the college promote a culture of participative management? If ‘yes’, indicate the levels of participative management.

One of the most important managerial concepts the college has implemented is that the college administration is managed by appointing teachers as coordinators and members of various committees which also have student representation. This has created a sense of involvement and responsibility among all the staff members resulting in efficient administration of the college.

- All functions involve many staff members working in various committees and providing their individual creativity and skills.
- Inter departmental support during seminars/workshops/ programs.
- Staff academy which is a forum for the staff.
- Inter departmental teaching.

6.2 Strategy Development and Deployment:

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

“To achieve stakeholder satisfaction and meet requirements through continuous improvement of the Quality Management Systems”. Is the informally stated quality policy

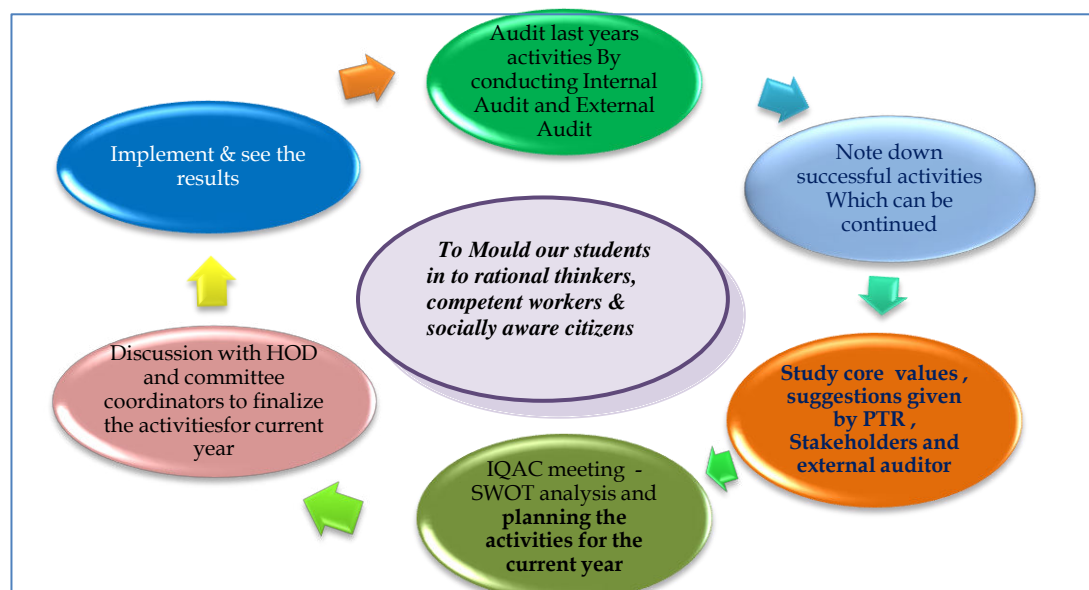
BNBCS is committed to imparting quality education in the field of basic and professional courses to create empowered, socially responsible youth to face the changing needs of the society and times. By adopting new policies and continuously improving core and support functions, BNBCS is trying to achieve excellence.

The quality objectives are-

- Continually improve work environment.
- Increased stakeholder satisfaction .
- Increase efficiency of work and development processes.
- Achieve best in Teaching and Learning processes.
- Inculcate ethical behavior among students.

Quality policy is developed by the top management and is discussed in IQAC meetings. It is deployed throughout the institution.

Fig 6.2.1(1) Cycle to improve and sustain the actions taken.





6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

The Institute has a perspective plan which considers the following aspects:

- To sustain the existing programmes.
- To improve student's performance in academics, co and extracurricular activities.
 - Enhancing Quality Culture and Performance Excellence
- To Introduce of New courses as per need of students.
- To strengthen Research activity.
- To improve alumni participation.
- To strengthen student support services.
- To ensure wellbeing of staff members of the Institution.
- To implement web based management system.
- To attain 100% computer literacy among staff and students
- To encourage community based activities.
- To maintain Eco friendly campus.
- To encourage industrial collaboration.
- To improve the soft skills of students.
- To have a Centre of excellence in education.

6.2.3 Describe the internal organizational structure and decision making processes.

Internal Organizational structure is described and defined in the Organizational Chart on page no. 191.

Vidya Prasarak Mandal:

BNBCS is managed by Vidya Prasarak Mandal, Thane which has its governing body to take care of fourteen educational institutions. However, the administration of BNBCS is the responsibility of the Principal who is directly accountable to the parent body. The Managing Council of VPM controls and plans the finance and approves the schemes of development.

Principal , Vice Principal and IQAC coordinator

The Principal and Vice Principal are involved in supervising the implementation of the



plans of the College. They ensure that regular day to day operations are properly conducted, through feedback from IQAC, teaching and non-teaching staff.

Local Management Committee(LMC)

The Local Management Committee is the Statutory Body, formed as per Section 85 of the Maharashtra Universities Act, 1994. The powers and duties of LMC are stated in the same. The LMC comprises of elected representatives of teaching and non-teaching staff, Chairman, Secretary and a representative of Management. This Committee can make recommendations for the improvement and up gradation of existing academic and extracurricular activities.

Heads of Departments

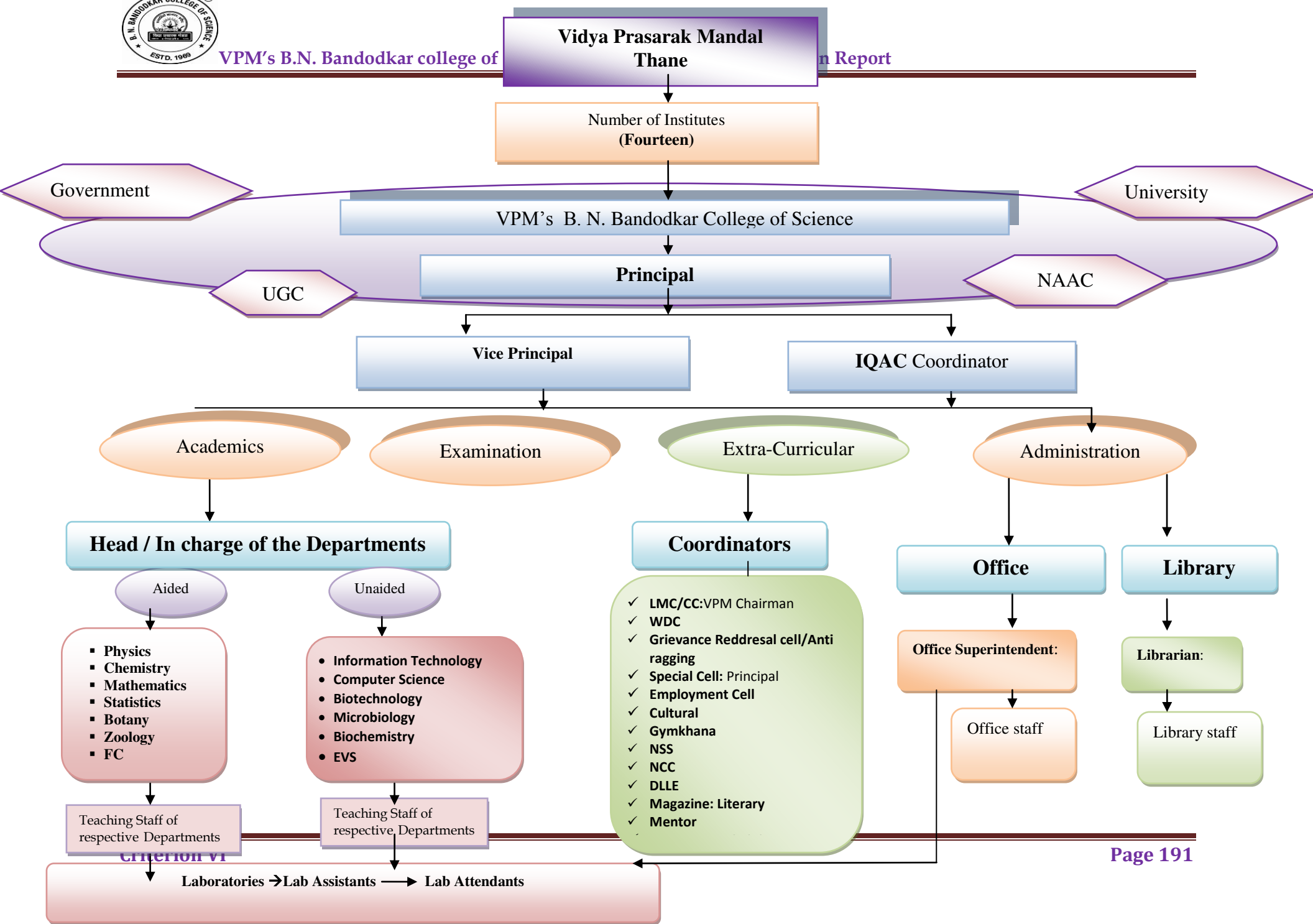
The Heads of Departments ensure that the plans communicated to them by the Principal are implemented systematically.

Committees for co-curricular and extra-curricular activities(cultural committee, Gymkhana, NSS, NCC, Departmental clubs, Research committee, Magazine committee, etc)

The committees are formed at the beginning of the year and are assigned the tasks according to the institutional plans, for the co curricular activities that enhance overall development of students.

Administrative Committees [Examinations, Unfair Means Inquiry, scholarships, Admissions, Attendance, Library, etc.]

For the smooth conduct of all administrative activities according to requirements of academic bodies and government rules, there are committees headed by senior faculty to guide the function.



6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

Teaching & Learning: The IQAC collects and analyses data regarding the performance of quality of teaching–learning and takes several measures for its improvement. Staff is encouraged to be a lifelong learner by continuously enhancing their skills. They are encouraged to attend workshops to acquire new knowledge and improve their practical skills. Faculty are motivated to attend faculty development programmes like orientation courses, refresher courses, short term courses organized by Academic Staff College (ASC). BNBCS has also organized Refresher courses in the subjects of Environmental Science on behalf of ASC- University of Mumbai.

Faculty is encouraged to use ICT which is an effective teaching tool and training is given wherever needed. Staff members who attend training programs share what they have learnt. Faculty is also encouraged to visit other institutions of academic excellence and adopt their best practices in teaching and learning.

The effectiveness of teaching – learning process is reviewed on regular basis. The inputs for such review are from:

- ✓ *Students' feedback.*
- ✓ *Results of internal tests.*
- ✓ *Quality of assignment submitted.*
- ✓ *Final results of term / year.*

The teaching and learning process is reviewed by head of the department for the concerned teaching faculty and the feedback is communicated. The concerned faculty then plans for improvements which are monitored on a regular basis for their effectiveness

Research & Development: Research committee plays an important role in this arm. Teachers are oriented for writing research proposals to funding agencies. Administrative support is provided. Also by providing learning resources such as equipments, chemicals, computers, internet facility and online journals, teachers are motivated to do research activities. Teachers are encouraged to do doctoral and postdoctoral research. Students are motivated to do research by giving them small projects related to the curriculum or of societal interest. These projects are compiled in a booklet –Mini Research Projects. Online journal J-BNB is published. Research scholar programme has been initiated through Science square.

Community engagement: BNBCS strives for inculcating social responsibility in staff and students. Besides various forums like NSS, NCC, Extension activity, individual departments are also involved in community engagement either by promotional activity or by working in real life situations.

Various Community outreach programmes are organized regularly.

- ✓ Blood Donation
- ✓ Cleanliness Drive
- ✓ Tree Plantation
- ✓ Adoption of Ashram Shala
- ✓ AIDS awareness
- ✓ Anti-Dowry movement
- ✓ Pulse Polio Immunization
- ✓ Helping Police during festivals
- ✓ Participation in “Save the Earth”, “ Rally and Earth Hour” programme
- ✓ Street Plays and Skits on socially relevant issues
- ✓ Survey of Women Status and Annapoorna Yojana Project by DLLE

Meetings of the Principal, Committee Members and Advisory Committee meetings are held to plan and organize different outreach activities. Coordinators are advised and motivated for further progression of the activities. Students are mainly involved in these activities.

Human resource management:

- Recruitment of quality teachers even for self-finance courses
- Training and retraining of the teaching and non teaching staff
- Motivation and support for faculty improvement through refresher / summer and other special courses and research work
- Eminent visiting lecturers at PG.

Industry interaction

- Experts are invited from various fields to deliver guest lectures.
- Industrial visits are arranged.
- In conferences and seminars industry experts are invited to deliver lectures and interact with the teaching staff and students.
- Campus placement activities are coordinated with different industries.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

The Management plays an important role in motivating the faculty for academic progress and efficiency. The faculty members are encouraged to participate and organize seminars, workshops, conferences and engage in research works.

In staff meeting, faculties are allowed to participate actively in policy formulation which give them a sense of recognition and encourages participative management.

Faculty members are allowed to attend orientation and refresher courses to improve their performance. They are provided with the study leaves for research work. The faculty members take part in all activities conducted by College.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The Management Council meets on a monthly basis provides guidelines on policy matters and to update the functioning of the College. The resolutions made in the last year are-

- i) To start a common employment cell on the campus. The initiative has been already implemented. Each college has their individual employment cell. But some programmes have been started to develop the employable skills among students Dr. Nitin Joshi from VPM's Management Institution, has conducted two lectures for our students and a scheme of selling greeting cards is launched to get hands on experience . Every Saturday eminent people from the fields are invited to guide our students to prepare to face the interviews. Accordingly our college has conducted monthly two sessions and each time nearly 180 T.Y. students have attended.
- ii) Launching of Hospital administration course- One batch has completed the course. Admissions for the next batch will start from April onwards.
- iii) To keep the help desk at the time of admissions. This has helped the admission process this year and hence decided to continue.
- iv) To take review admission status of all colleges on the campus and publish the common prospectus with all details of all courses available under VPM banner. This process is in progress.
- v) To initiate the collaborations for academic and research activities. BNBCS has started this process with TERI and SACON.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes. As of now we have not applied for autonomy.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder relationship?

Table 6.2.9(1) showing the type of complaints and methods to resolve them.

Complaint type	Method of registering	Action taken to resolve
Administrative services	a. Oral Complaint registered with the Principal/Vice-Principal/OS b. Suggestion Box c. Student Feedback Forms	IQAC reviews the complaints Principal addresses the complaints.
Examination related at College /University Level (verification of marks, errors in the mark sheets etc)	a. Written Application to the Principal through the Examination Committee for College Exams. b. Written Application is forwarded through the Principal to the University Examination Section for University Exams.	Appropriate measures are taken by the Examination Committee.
Staff's Complaints	a. Oral/ Written/ Complaints are registered with Principal/HOD's/ OS. b. Online complaints pertaining to computers, internet, Wi-Fi are registered online with the server room	Matters are resolved at their respective levels
About Teaching	Oral/Written Complaints can be given to the Principal/HOD's.	Matters are resolved at their respective levels.
Timing Pertaining to 1. Lectures/ Practical 2. Admin Office 3. Library 4. Gymkhana 5. PTA meetings	a. Suggestion box b. Oral complaints with the Principal c. Feedback forms	Appropriate measures are taken at respective levels.
Library services	a. Oral complaint can be lodged with the librarian. b. Suggestion box.	Librarian / Library committee addresses the suggestions/complaints put up.
Cleanliness	a. Complaint register	Prompt measures are taken

	b. Oral Complaint registered with the OS	to address and supervise the same.
Failure of gadgets like aqua guard, tube lights , fan, computers, tap leakage, disturbance in intercom system	Complaint register	Management provides the college with the apt resources.
Ragging	Written Complaint registered with Anti-Ragging committee.	Anti-Ragging Committee looks into the matter
Sexual harassment	Written Complaint is registered with the WDC	WDC looks into the matter
About Students to the Parents	a. Letters b. Telephonic communication c. PTA meetings	Matters are resolved post discussion with the parents.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

There are two cases filed in the last four years.

- 1) The case filed by Mr. Prabhakar Krishna Bhat who superannuated on 30st Aug 2008, case No -8117/2013 against Government of Maharashtra and others regarding option for commutation of pension.
- 2) Case filed by Mr. Ganesh Patil challenging the judgment and order passed by the Ld Presiding officer, University & college tribunal order dated 3/4/2014 of appeal no 18 of 2012 regarding the termination/discontinuation of services.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes. Satisfaction of the student is the key element of our success. BNBCS collects the feedback from students about teachers and the facilities provided in the college on four point scale.

Teachers' performance is evaluated on the basis of effectiveness in teaching, interaction in the class, participating organizing the activities, attending seminars and workshops etc. The feedback from the students about Library facility, Gymkhana facility, and Departmental facility and administrative services is also collected on four point scales. Negative feedback leads to improvisations; thereby ensuring total student and stakeholder satisfaction.

Students Satisfaction Index data is collected from T.Y. B. Sc. students. By analyzing it, corrective measures are taken.eg. Office timings are modified as per the suggestion.

6.3 Faculty Empowerment Strategies:

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff?

BNBCS as an Institution has evolved an excellent work culture of respecting each other and thus creating an ambience congenial for academic and personal growth. We believe that when the staff grows the Institution also grows.

Steps for professional development of teachers:

- Workshops and talks for team building, time management, stress management, enhancing ones IQ, EQ and SQ are conducted.
- Faculty is encouraged to register for Ph.D and avail leave under UGC FDP.
- Facilitating sanction of travel grant for attending conferences abroad.
- Timely information is provided on deadlines for research grants.
- Orientation on career advancement schemes for teachers and ensuring smooth processing of their applications.
- Periodic staff get together to assimilate information regarding new techniques, changes in evaluation, research consultancy & achievement.
- Recognition of the achievements of the staff at appropriate forums.

Our extremely supportive nonteaching staff is encouraged to hone their technical, academic and soft skills.

- Workshops to train them in acquiring computer skills.
- Encouraging them to participate and organize intercollegiate competitions.
- Encouraging them to acquire higher qualifications.
- Training for supporting staff by the departments in specific areas like preservation of plants and animals, preparation of stock solutions, chemicals, storing of chemicals, safety in laboratories, maintenance of electrical equipment's etc.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

BNBCS empowers the Faculty through-

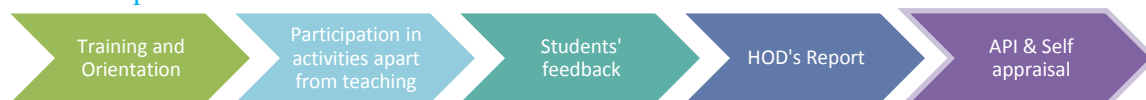
- Orientation of new recruits
- Workshop on funding agencies and how to write a research proposal
- Encouraging teachers to organize and/or participate in workshops, conferences at National and International levels
- Workshop on CAS for teachers
- Training in new areas whenever the curriculum is revised/ upgraded.
- Delegation of duties and responsibilities

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

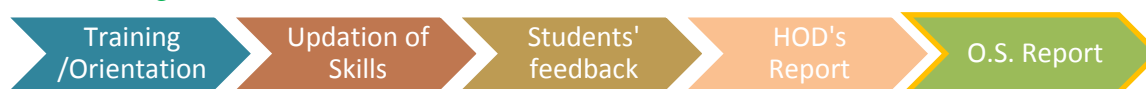
Teachers are evaluated by students by filling structured feedback forms; self-appraisal is done by filling self-appraisal forms, evaluation by the Heads of the Departments and Head of the Institution. The API forms are being used since 2010.

- API forms are filled by every teacher every year and are verified by IQAC.
- Maximum involvement of staff in various activities of the college. Every teacher has assigned various committees for extra and co- curricular activities& seen that each staff member gets better chance to explore their talents.
- Total involvement of staff in key programs.
- Sharing of information at various forums.
- Student feed-back shared by the Head of the Institution with the staff in areas of concern has resulted in a very positive outcome in terms of teaching and participation in various activities of the college.

Teachers' performance



Non teaching Performance



6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

For the performance appraisal it was decided to develop online feedback system to get the feedback from students.

6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Since BNBCs is permanently affiliated with UOM and recognized by UGC under 12f & 2B, all the government and UGC schemes are available.



- Government Schemes
 - i. Duty leave for teachers.
 - ii. UGC travel grant –for presenting papers abroad. Two staff members got this grant.
 - iii. Maternity leave is sanctioned for six months.
 - iv. Fully paid leave is given to the staff members suffering from long term illness like cancer. One staff members have availed this leave.
 - v. LTC is sanctioned once in two years for the staff member and family.
 - vi. PF loan for staff.
 - vii. FIP leave for carrier advancement.
 - viii. CAS promotions.
- Staff Welfare Activities
 - ✓ Free medical checkup / Camps are organized for the staff.
 - ✓ VPM's Employees Cooperative Credit Society is formed by the VPM College Staff. It offers loan upto Rs.4.00 lakhs at interest rates lower than the market rates. Emergency Loan up to Rs.18000/- can be given to the staff members. Almost 80 percent of the staff has availed the loan facility.
 - ✓ Staff members voluntarily contribute funds to help any colleague for medical expenses/disaster situation.
 - ✓ Festival advance for members of supporting staff payable in easy installments before the financial year ends.
 - ✓ Annual celebration of Satyanarayan Pooja.
 - ✓ The class IV employees are given free uniforms.
 - ✓ Encourage staff to participate in programs organized by our college and other colleges.
 - ✓ The non-teaching staff of the chemistry department is provided with gloves and safety goals.
 - ✓ Deserving wards of retiring/deceased members are given preference in jobs.
 - ✓ Free computer literacy and training for non-teaching staff.
 - ✓ Processing of loan application of staff and faculty.
 - ✓ Encourage supporting staff to participate in intercollegiate sports and cultural activities.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

Factors for attracting faculty: Fair procedure for the selection and recruiting staff and encouragement to improve qualifications.

Table 6.3.6(1) Factors attracting workforce to the college:

Pay scale	As per UGC norms for qualified staff from both aided and unaided departments
Annual increments	Are also given to the staff appointed by Management
Research exposure	Motivation and infrastructure to carry out research activities
Easy conveyance	Near to Railway station and Bus stand
Open door policy	Communication (two-way) with SLs
Flexible work timings	Departmental time-table is adjusted as per the convenience of the staff
Facility to work as part-time or CHB	Those pursuing research can join on part time or CHB basis to facilitate both: teaching experience and research

Attrition in the organization is negligible because of the excellent work environment and the staff continues until retirement.

Even post retirement, the staff continues in the organization as guest and visiting lecturers. The extended benefits include flexible working hours, attempts to reduce job pressure. During periods of workforce leave, additional faculty is recruited if the period extends 21 days or existing staff manage the overload.

6.4 Financial Management and Resource Mobilization:

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The institution prepares yearly budgets for allocation of funds for effective use of available resources. The college budget is prepared taking into consideration the priorities that needs to be catered during the year.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

BNBCS has an Institutional internal auditor who audits all the accounts quarterly and final auditing yearly. The audit reports are sent to the government office and there have been no major objections. The Government auditor also audits our accounts. There are no adverse comments on the accounts.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

The major sources of the institutional receipts are the salary grants received from the State Government, the fees collected from the students under various heads as prescribed by the University of Mumbai, the fees received from the self-financing courses, the grants from funding agencies like UGC, UOM, industry etc. and to minimal extent the sponsorships for various activities of the college.

The Copy of audited statement of accounts for last four years are attached as **Annexure Deficit** if any is managed with our management's support.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

Our Institution applies for funding to different funding agencies. The institution has also started unaided courses at UG and PG level. Fees collected through these courses are utilized for improvement in college.

In the last four years additional funds have been obtained and utilized as per details provided below.

Table 6.4.4(1) Additional funding of last four years

Particulars	2010-11	2011-12	2012-13	2013-14
Grant received from University for Special Purpose				
NSS from University	57420	80988	74480	42500
Book Bank from University	21600	14625		
Grant received from UGC				
UGC Development Grant	-	520000	-	-
UGC Seminar Grant	71250	101250	131250	-
Research Grant :				
UGC -Major Research -	-	253328	1761607	1023000
UGC -Minor Research				315000
University Research Grant	49000	40000	135000	-
Total research grant	49000	293328	1896607	1338000



6.5 Internal Quality Assurance System (IQAS):

6.5.1 Internal Quality Assurance Cell (IQAC)

- a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Yes. The College has very active IQAC since 14/01/2004.

The institutional policy with regard to quality assurance is as follows:

- To make BNBCS a premier Institute of Higher education in Science by implementation of Quality Policy throughout the institution and continual improvement in work environment, increasing stakeholder satisfaction, improving efficiency of work and development processes and achieving better results.
- By our mission we are committed to develop students as socially responsible citizens, so as to enable them to meet the future developments and challenges.

IQAC has developed mechanism of its own for quality assurance. The Departmental audit is done by considering the departmental report along with student's feedback and corrective measures are suggested to improve the quality of their performance. The quality assurance processes are institutionalized. During meeting with IQAC coordinator, non teaching staff is briefed about complaints, their remedies and quality enhancement techniques.

- b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?

The management is receptive to the plans forwarded by IQAC. The decisions approved and implemented are given in Table.

Table 6.5.1(1) major plan implemented during last four years.

Year	Major plan
2010-11	<ol style="list-style-type: none">1. Proposal for "Best college" under Mumbai University2. "Online feedback forms" for students3. "Digital repository"4. Providing computerized attendance record sheets to junior supervisors.5. Arranging a workshop for girls on self defense through WDC.6. Arranging National conference on "Intelligent systems".7. Applying to start new courses<ol style="list-style-type: none">i. B.Sc. (Biochemistry)ii. M.Sc. (Physics – By Papers)iii. M.Sc. (Physics–By Research)iv. M.Sc. (Environmental Science – By Papers)v. Ph. D. (Physics)



2011-12	<ol style="list-style-type: none">1. Application for FIST-0 level grant2. Arranging a workshop /seminar regarding “Funding for research projects”3. Departmental Audit by IQAC4. Special diary to all teachers5. National conference on “Biotechnological diagnosis”6. National conference on “Cloud Technology”7. Computerization of attendance8. Book bank facility to merit holders9. E-magazine10. Appointment of full time counselor11. Renovation of Physics lab12. Arranging orientation lecture about CBGS of examination to teachers as well as students
2012-13	<ol style="list-style-type: none">1. Students satisfaction Index2. Orientation lectures on use of Library facilities3. Workshop on ‘How to maintain records? for laboratory assistants4. National conference on5. Internal and external Audit6. Launching of value added and skill development courses7. Publishing of E Journal J-BNB
2013-14	<ol style="list-style-type: none">1. Internal and external Academic audit2. Orientation for Lab assistants3. State level workshop on Role of IQAC4. National conference on Biodiversity: status and challenges in conservation. FAVEO -20135. Applying to start new courses<ol style="list-style-type: none">i. B.Sc. (Human Development)ii. B.Sc. (Interdisciplinary)iii. B.Sc. (With NCC as subject)iv. M.Sc.(Biodiversity and conservation)6. Developing new web site with the help of IT students.
2014-15	<ol style="list-style-type: none">1. Applying for Star college award2. Applying for RBNQA3. Going for third cycle of Re accreditation by NAAC.4. National conference on- New and Emerging Trends in Bio-informatics and Taxonomy5. Interactive sessions for students through departmental clubs.6. Improvement in the Placement cell activity7. Seminar on issues based on Women and Science8. Submitting the proposal for CPE9. Developing Computer lab for Mathematics and Statistics department



c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes, Mr. Surendra Dighe – founder of NGO – Jidynasa Trust is our IQAC member. He insisted to conduct the programmes on environmental awareness accordingly work shop on solid waste management was organized.

Dr. (Ms.) Vaishali Somani suggested to gives the admissions to Ph.D. students of other colleges for research methodology course conducted in our college accordingly we have conducted the course for two batches.

d. How do students and alumni contribute to the effective functioning of the IQAC?

- Students' feedback is considered for formulating various policy initiatives by the IQAC.
- Two alumni are the members of IQAC; their feedback is taken to formulate various strategies.
- AQAR is discussed with Students council members and Alumni representatives and their inputs are well thought-out for future planning.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

Many of the IQAC members are actually heading the various activities in the college such as examination committee, Library committee, and Research committee. Joint meeting of IQAC coordinator and the Heads of Departments is organized to plan different programmes such as seminars and workshops. Yearly calendar is prepared before starting of the academic year and is displayed on the notice boards as well as on the web.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

The institution has an incorporated structure for Quality assurance of the academic and administrative activities through a long term strategic plan and an annual operative plan.

Academic activities:-

- Principal's meetings with managements- focus on the current educational needs, the financial and competitive environment
- IQAC meetings which are conducted monthly to ensure smooth running of the activities as per the plan
- HODs meetings
- Meetings with parents



Administrative activities: -

- Meetings with nonteaching staff.
- HOD's meetings.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

The college provides training to its staff at different levels.

- The principal conducts orientation lecture for newly recruited staff periodically.
- Examination committee conducts orientation sessions about examination duties as supervisor and as examiner.
- IQAC arranges computer literacy training for non teaching staff.
- IQAC conducts meetings with administrative staff to streamline their duties.
- Regular meetings are held by the Principal for teaching and non teaching staff.

VPM had organized the workshop 'Rising above and beyond the Excellence' for senior teachers of various Institutions.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

The institution undertakes different modes of Academic Audit – Internal audit from the year 2011-12 and external audit from the year 2012-13.

- a) Internal audit is done by IQAC by evaluating departmental report- covering different areas like teaching-learning, results, individual up gradation, use of technology, extra efforts taken for improvement of the results etc. The audit report is submitted to the Principal and is discussed in Heads of the Departments meeting. Corrective measures are suggested for further improvement.
- b) BNBCS has undertaken external Academic Audit on 13th Aug 2013. Academic audit was conducted with the aim outsiders view will help to overcome some blind spots while looking at the quality aspects. The process of Academic audit was systematically planned and scheduled with-
- Principal's Presentations
 - Departmental Presentations
 - Presentations of Committees and Associations
 - Interactions with faculty
 - Visits to Library, Laboratories

The important observations of the academic audit are:-

- ✓ The college has defined its goals and objectives clearly and the same are communicated systematically to all its stakeholders.
- ✓ The programmes of the college are consistent with its goals and objectives.
- ✓ The college has a wide range of programmes UG / PG / Research / Diploma Certificate courses that provide adequate academic flexibility.



- ✓ Academic calendar is prepared well in advance.
- ✓ The college promotes use of ICT in teaching-learning process.
- ✓ Science square activity is a good initiative taken to inculcate research culture among students.
- ✓ Every year college is organizing National Seminar on various topics.
- ✓ Well organized Extension activities and Outreach activities are highly appreciable.
- ✓ The college has adequate and well maintained infrastructural facilities
- ✓ All the resources at college are used optimally.
- ✓ Other learning resources like Digital Repository, Online Journal are provided which is appreciable.
- ✓ Results are consistently excellent.
- ✓ Internal academic audit is conducted by IQAC and measures are taken to improvements.
- ✓ College appreciates the achievements of Non- teaching Staff.

Suggestions

- i. Research activity need to be strengthened in some of the departments.
- ii. There is a scope to improve the activities of Placement Cell.
- iii. National and International linkages to be strengthened.
- iv. Faculty exchange and Students exchange programmes be encouraged.
- v. The college has great potential and may try to become autonomous.

We have taken these suggestions seriously. Now almost in all departments teachers are involved in research activities. VPM has taken initiatives to establish centralized placement cell.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The Internal quality assurance mechanism involves all the members of the teaching and non-teaching staff who are motivated to visit various Institutes to know their best practices and attend the conferences and workshops related to quality maintenance and quality enhancements. Members update their knowledge by reading manuals and news bulletin published by NAAC.

The internal quality assurance mechanisms are aligned with

- The suggestions given by NAAC Peer Team visit during January 2010.
- The directions given by Mumbai University from time to time.
- The directions given by Government of Maharashtra from time to time.

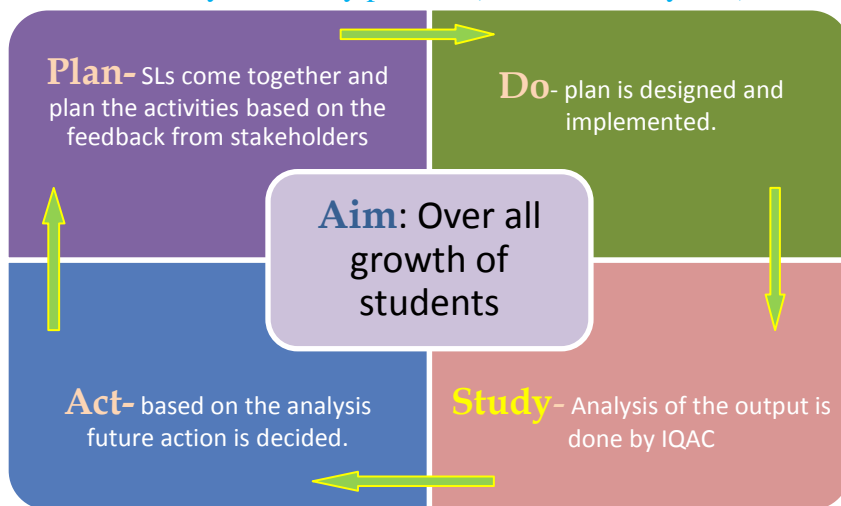
The visits of eminent personalities, university officials, parents, alumni provide valuable suggestions. Sincere efforts are made to implement them.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The structure and methodologies of institutional mechanisms to continuous review of the teaching learning process are as follows:

- The Teachers' Diary is given to the teacher at the beginning of the academic year. Every teacher makes noting of teaching plan and topics taught date-wise and get endorsed by Head of the department. This is effective regulation of teaching process and corrective measures can be taken time to time by the teacher himself/herself or by HOD. In this diary teacher makes noting of the activities in which he/she has contributed.
- Self-Appraisal Forms are the mirror of the improvements/achievements of the faculty members, which goes through three stages: Faculty-HOD-Principal. This also brings the self-awareness amongst the faculty members about further professional improvement including teaching and learning.
- Feedback from the students and teachers are taken by IQAC. Feedback is analysed and Principal along with IQAC coordinator give suggestions to the concerned staff members.
- HOD takes the review of the student informal feedback and gives the suggestions to the concerned faculty for further improvements.
- Student-parents-teachers meetings are also conducted periodically where students and parents express their views freely about different issues in the college. The suggestions related to the teaching and learning are taken into consideration for further improvement.

BNBCS follows the PDSA cycle for any process (Plan-Do-Study-Act)



6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The college uses the following medium to communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders.

Stakeholders	Source of communication
All stakeholders	<ul style="list-style-type: none"> ▪ Prospectus ▪ In Person ▪ Print/E-Media ▪ Web site
Management	<ul style="list-style-type: none"> ▪ Principal ▪ LMC meetings
Current student	<ul style="list-style-type: none"> ▪ Inaugural address by Principal ▪ Students' council meetings ▪ Display of notices
Staff	<ul style="list-style-type: none"> • Staff meetings • Every staff member has VPM email id and is regularly used for communication. Notices are circulated via e-mails along with circulation and display of hard copy on notice boards
Parents	<ul style="list-style-type: none"> • Parents meetings.
Alumni	<ul style="list-style-type: none"> • Through Alumni Group "Anubandha" ▪ Telephonic conversation • E-mails

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

The web-based management system and Wi-Fi enabled campus have supported the governance and management.

The Principal believes that; *"Trust men and they will be true to you; treat them greatly and they will show themselves great."* Realizing that *"a successful team is a group of many hands but of one mind"* our Principal plays a very crucial role while leading the institute.

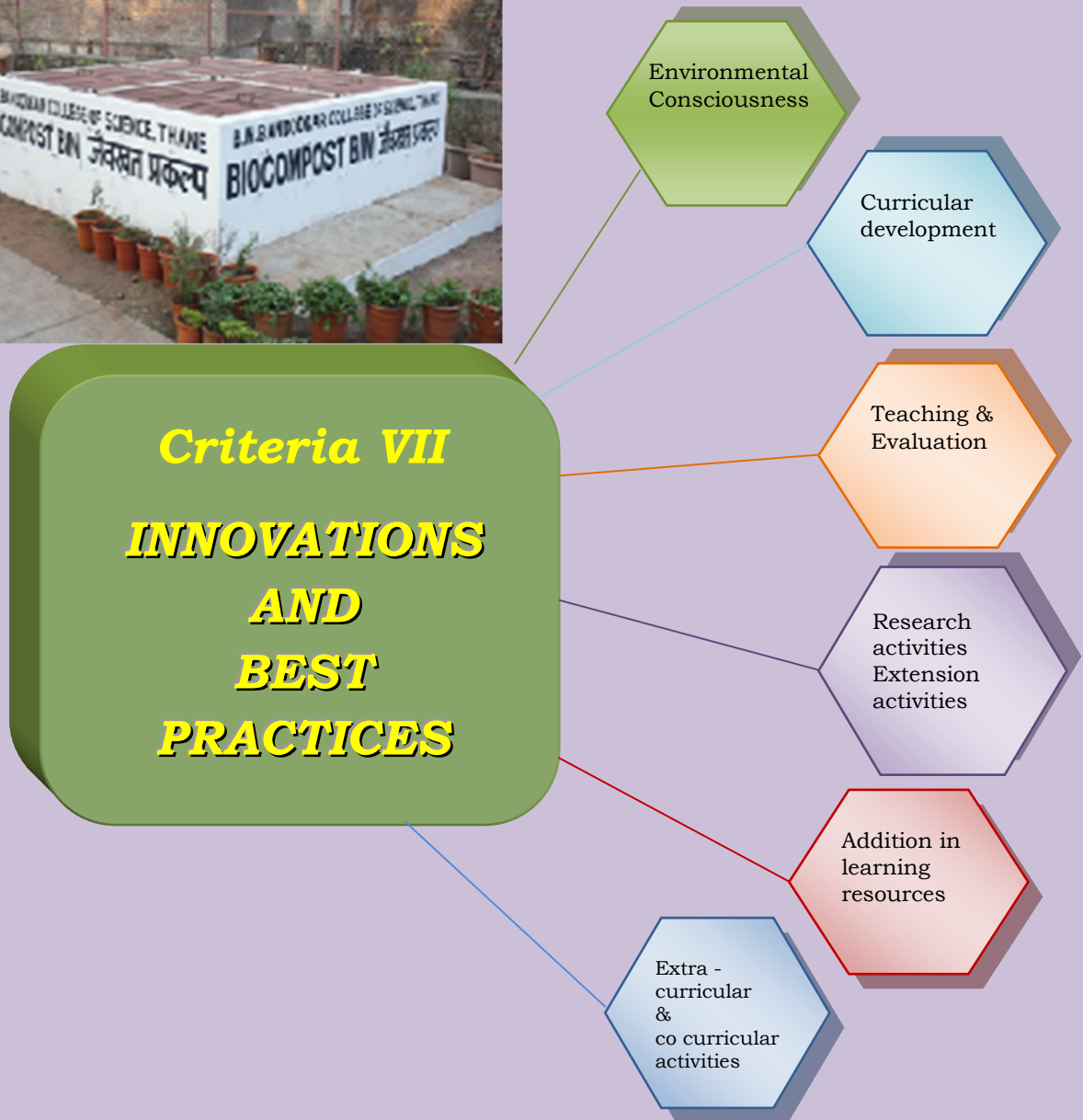


SLs support nonteaching staff also. The achievements of nonteaching staff in last five years –

- 1) **Mr. Vipul Chavan** from Zoology Department passed M.Sc.(I.T) exam from University of Mumbai:
- 2) **Mr. Pramod Sawant** from Library Department passed B.L.I.Sc exam with first Class (61.6 %) from Yashwantrao Chavan Maharashtra Open University, Nashik and passed Granthapalan Pramanpatra Pariksha held in June 2011, from Thane Marathi Granthasangrahalaya.
- 3) **Mr. Shivaji Raut** from I.T. department completed T.Y.B.A. from IDOL University of Mumbai.
- 4) **Mr. Ninad Koli** passed Granthapalan Pramanpatra Pariksha held in June 2011, from Thane Marathi Granthasangrahalaya.
- 5) **Mrs. Seema S. Rasam** from Library completed T.Y.B.A. from YCMOU in the year 2013.
- 6) **Ms. Devayani Ladhe** (Gymkhana Assistant)
 - Secured 2nd rank in 10000 meter run at 35th Maharashtra Masters Athletics Competition 2014.
 - Selected as Basket Ball “Team Manager” for University of Mumbai.
 - Secured 2nd rank in 10000 meter run at 36th Maharashtra Masters Athletics Competition 2015.
 - Secured Gold Medal in Shot put at 36th Maharashtra Masters Athletics Competition 2015.
 - Secured Bronze Medal in Long Jump at 36th Maharashtra Masters Athletics Competition 2015.
 - Secured Silver Medal in Relay (4 x 100) at 36th Maharashtra Masters Athletics Competition 2015.



“For the things we have to learn before we can do them, we learn by doing them.” ~ Aristotle





Criterion VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment consciousness:

BNBCS believes that it is every one's foremost duty to protect the environment. As we believe that "*Environmental pollution is incurable disease it can only be prevented*", Unless and until awareness is created among the young generation to protect and save environment, corrective measures can't be initiated. For this various programs, activities have been carried out. This effort has helped us to spark the light in the minds of the students to do needful for saving the environment. We are making them aware about how conserving / preserving nature is possible as well as important.

With societal aspect in mind many of our staff members are working hand in hand with various NGO's, working in the field of environment. This helps in utilizing their knowledge for society to bring awareness and practicing environmental proactive projects.

7.1.1 Does the institute conduct a Green Audit of its Campus and facilities?

Yes. The college has been actively involved in conducting green activities in and around the campus.

- The college realizes the necessity for creating awareness on eco-friendly atmosphere among the students so that they can practice such ideas in their personal lives too. In order to achieve this aim, the college has introduced Environmental Science and Biodiversity & wildlife conservation & management at PG degree courses and as an applied component for Microbiology, Biotechnology and Biochemistry UG programmes. BNBCS is the only college offering Ph.D. course in Environmental Science, affiliated to University of Mumbai.
- Workshops /lectures on the topic solid waste management, rain water harvesting, conservation of energy etc are conducted.
- BNBCS has a specially designed bio-compost bin for the entire VPM Campus. This bin is utilized to bury the Organic debris. The college also ensures that this debris is not burnt and is used for a green cause.
- The overflow of water is checked and the leaking points are identified and repaired immediately. Suitable measures are undertaken to prevent wastage of water, like putting up of stickers near the taps highlighting the putting off the tap after use.
- Some portion of waste paper that is generated is utilized for making of handmade paper. This paper is further used by students for making bookmarks and other souvenirs. This helps in saving trees, as wood pulp is the primary source used for making paper.
- The college has taken up steps to minimize the energy consumption and had conducted Energy Audit in which electricity bills data from year 2007-08 till 2011-12 was undertaken by one of the M.Sc. student for dissertation with the help of staff from Environmental



Science department. Also the questionnaire based survey was conducted for teachers and students from various departments and comparative data was presented.

- Results from this Audit were deeply studied to take necessary actions towards energy conservation.
- To ensure continuity of the regular audit program the students from the Department of Environmental Science and the volunteers of NSS unit of the college are being handed over the responsibility to conduct this audit program. In the first step of the Audit, the data about all the electrical appliances and equipment from various departments and laboratories has been collected. The data also includes information regarding power consumption by the equipment. In the second step, the customized datasheet will be provided to the lab assistant of respective department to fill the energy consumption data on weekly basis. Along with data collection awareness programs will be conducted throughout the year which will include motivating the students to conserve electricity, putting up stickers on energy conservation near electric switch boards etc.
- The college has started with Solid Waste Audit from current year for which different departments from college have started segregation of waste into different categories such as Plastic, Paper, Glassware and Wet waste. The segregated waste from the respective bins will be weighed and then will be treated accordingly. Also awareness sessions for reduction of waste at the source will be carried for teaching, non teaching staff and students.
- Various department from college have different clubs such as:
 - Journal club: To inculcate research temperament in the youth.
 - Movie club: To raise awareness regarding various environmental issues.
 - Nature clubs: To bring the youth close to Nature.

7.1.2 What are the initiatives taken by college to make the campus eco-friendly?

We regularly organize lectures on environmental issues for which we call eminent personalities from various areas working for Environmental Protection to create awareness among the students.

Energy Conservation

- All the classrooms have good light and ventilation. The institution strictly monitors that no electric equipments run unnecessarily. Thus enough measures are taken to use electricity carefully which helps in Energy Conservation
- Minimal consumption of energy is saving energy. The notices near the switch boards prevent wastage of energy.
- Electronic equipments and gadgets are shut-off when not required.
- Most of the refrigerators and AC's used in college are with energy saving technology.
- Copper chokes in tube lights are converted to electronic chokes which consumes less energy.



Efforts for Carbon Neutrality

- Proper measures have been taken to reduce carbon emission to keep the campus, pollution-free and uncontaminated.
- Automobiles are not permitted inside the campus except a few to keep the campus pollution free.
- Carbon emission is minimized and neutralized by beautifully well maintained green campus.
- The Organic debris and waste papers are not allowed to be put on fire. The institution have specially designed bio-compost bin which is utilized to bury dead leaves.
- Some portion of waste paper that is generated is utilized for making of handmade paper. This paper is further utilized for making bookmarks and other souvenirs helping in saving trees, as wood pulp is the primary source used for making paper.
- Agar waste from microbiology and biotechnology is used in vermi-composting to make fertilizer.

Plantation

- Every year on 1st August – VPM's foundation day, tree plantation is organized on the campus.
- The green ambience of the college is largely due to tree plantation by the management. There are about 200 trees of various kinds in the campus. Trees have nearly covered 30% of the campus area. They help to maintain the ecosystem.
- Through NSS tree-plantation & maintenance programmes are organized in and outside the campus. These planted trees are also maintained carefully by the college authorities. In collaboration with different NGOs like Hariyali and Hope, NSS and NCC units of college are involved in tree Plantation programme at various barren areas like Bhavale, Yeoor hills.
- The college also conducts the programme of plant conservation through unique concept of tying Rakhis to Trees in the campus through NSS.

Hazardous Waste Management

- The college avoids the usage of severe corrosive chemicals in the practical classes and sees that minimum quantity of chemicals is purchased to save expiry and disposal.
- Solid waste in the chemistry lab is collected separately and disposed off carefully without causing any harm to the inmates.
- Adequate number of exhaust fans and fume hoods are also provided.
- Waste chemicals in the chemistry labs are properly disposed by dissolving them in water or by keeping separately in protected sheets.

E-waste Management

- Electronic goods are put to optimum use; the minor repairs are set right by the staff



and the Laboratory assistants; and the major repairs, by the professional technicians appointed by the management, and goods are reused.

- The damaged computers are repaired by professional technicians at server room, maintained by the management.
- UPS Batteries are recharged /repaired / exchanged by the suppliers.

7.2 Innovations:

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

BNBCS believes on the words said by Foster A. William *“Quality is not an accident; it is always the result of high intention, sincere effort, intelligent direction and skilful execution; it represents the wise choice of many alternatives.”*

BNBCS is taking conscious and continuous efforts for skill development of students. The institute and management are focusing on all round development of students and quality enhancement of teachers. We work hard to identify our strengths and weaknesses by taking feedback from stakeholders as well as from self introspection. IQAC conducts internal audit by considering all feedback and reports and suggests remedial actions on weaknesses to improve quality of teachers and students. Our institute is emerging as a centre of excellence.

Academics:

- Introduction of new courses at UG and PG levels.
- Enrichment programs ranging from academic-value added to skill development based on requirements.

Teaching, Learning and Evaluation:

- Unique number Permanent Registration Number (PRN) is given to a student to track the record /progress of the student.
- Designing Academic Calendar before starting of academic year and efforts made to follow it strictly.
- Remedial lectures for weaker students and extra guidance for bright students.
- Arranging Club activities, Journal club activities and subjects’ carnivals exposure for exposure to new emerging trends in the subject.
- Digital Repository – notes, question bank and Question papers are made available online.
- Introduction of Teacher’s Diary.
- Arranging book exhibition- exposure to special day celebration.
- Book-bank facility for meritorious /needy students.
- Orientation sessions for new pattern (credit based grading system) of examination.
- Orientation for newly recruited staff about functioning of college and examination rules.
- Orientation sessions for students and staff about facilities available in the library.

**Research:**

- Arranging State level /regional level conferences/workshops in addition to the National conference - with two preparatory workshops every year.
- Publication of E-journal J-BNB.
- Initiating research Scholar programme.

Extension Activities:

- DLLE activity is added to develop entrepreneurship skills.
- Number of NSS activities is increased.

Infrastructure :

- LCD and laptops are provided to all departments.
- CCTVs are installed in all corridors, in departments, staff room for security purpose.
- Renovation of:
 - Physics laboratory and department.
 - Chemistry department and physical chemistry.
 - Development of computer lab for Mathematics and Statistics Department.
- Addition of new equipments.

Students support programmes:

- Unique number PRN is given to a student to track the record /progress of the student.
- Online feedback from Student.
- Feedback for students' satisfaction Index.
- Appointment of Full time counselor.
- As per demand of students workshops are arranged to develop proficiency in extracurricular activities. Eg. Dance work shop, Make-up technique workshop etc.

7.3 Best Practices:

7.3.1 Elaborate on any two best practices as per the annexed format. Which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college?

The best practices those were appreciated during January 2010 NAAC visit are

1. **Wi-Fi Campus, Free internet and online journal facility** To facilitate study and research atmosphere in the college, The institution has subscribed for online database like JSTOR, EBSCO, CMIE, ERIC, Open access database are made available to faculty and students on Internet. Our College has Wi-Fi.
2. **Online Admission.** Our college has been giving **online admissions**, which makes the admission process transparent and efficient.
3. **Smart I-card.** To ensure the proper security of the campus, the staff and students are given **Smart i-cards**. These smart cards are used as entry cards in the campus and in the library and also used to issue books.



4. **Science Square activity.** Students are encouraged to undertake small research projects under the guidance of teacher.
5. **National conference/Seminars are conducted every year along with two preparatory workshops.**
6. **College School complex.** To help the school children in their projects and to make aware our college students about social responsibilities. Visits of school teachers and children to the college are encouraged. College teachers and students interact with them. The students participating in National Talent Search programme or Homi Bhabha Junior Scientist Fellowship also seek guidance from our faculty.
7. **Yoga classes.** A certificate course in Yoga is conducted regularly in collaboration with 'Shri Ambica Yoga Kutir, Thane' for staff and students of VPM institutes.
8. **All auditoria and seminar halls on the campus are connected by fiber optics, and video conferencing facility is made available.**
9. **Our data base is on Linux.**
10. **Mentor system.** The mentor-teacher helps students to solve academic as well as non-academic problems.
11. **We are conducting webinars.**
12. **Bio-compost for Garden waste.**

After NAAC visit we have added following Best Practices:

1. **Digital Repository:** Notes, Question Bank, Old Question Papers, Guest lectures, Research papers, and Seminar/conference proceedings are uploaded in our digital Repository.
2. **Audit of the Departments:** Audit of all the activities of the departments along with result is conducted and suggestions for improvements are given. Each department is keeping the record of all activities conducted.
3. **E-Magazine- Sanyuja:** In the current scenario we have to take steps for conservation of environment and hence we have started publishing our magazine as e-magazine. This will not save the paper but also money. Also Our Alumni staying all over the world can read about their Almamater.
4. **E-Journal-JBNB:** To inculcate research aptitude in the students we have Science square and students do the projects. To publish their papers along with the research articles and research papers of the staff we have started E-journal E-JBNB, again paperless and in this era of computers and internet a techno savvy activity.
5. **Record keeping for Energy Audit:** Steps are taken to conserve energy. Each department is keeping the record of number and usage of electrical appliances in order to save electricity consumption. This data will be compared with the energy consumption of last five years to implement conservation and economic use of power.



6. **Vermicompost for canteen waste:** Canteen waste is converted in to compost which will be marketed.
7. **Examination report:** Computerized attendance record sheets are provided to junior supervisors to reduce their writing work so that they can do supervision work efficiently. Also the size of the answer book is reduced to save wastage of papers.
8. **Remedial lectures/ bridge course:** To improve the results we conduct remedial lectures before the additional examinations. Prior to the commencement of regular course some departments arrange bridge courses.
9. **Book-bank facility for meritorious /needy students who cannot afford.**
10. **Appointment of Counselor:** In this competitive era students undergo stress, to help students with proper guidance a full time Counselor is appointed.
11. **Teachers Diary:** To maintain all records- lectures taken and allotted, examination work done, attendance record of seminars/workshops/conferences, meetings attended, leave record etc. special diary is designed and every year for each teacher diary is given to maintain his/her records.
12. **Imparting value education through the program 'Jagar Janivancha'**
13. **BNBCS** has undertaken the projects to create environmental awareness like
 - i) Poster Library-Posters related to environment/ biodiversity are displayed in various schools in Thane.
 - ii) Biodiversity studies in Bhavale lake and Sanjay Gandhi National Park. Students visit every Quarterly to these places.
 - iii) Bio-composting and waste management course – students are trained so they visit various societies to create awareness and help to initiate the project.

Best Practice – 1

Title:

Annual organization of National conferences with two preparatory workshops

Context:

'Quality education' is a key to development and the same in science should lead to generation of knowledgeable, skilled work force who can contribute positively to the technological development of the country.

In India, at undergraduate level, limited knowledge is generally acquired by the students through conventional class room teaching, practicals conducted in laboratories, and with the library reference books. With a vision of providing Quality education in science, inculcation of scientific temper and spirit of enquiry in students becomes prime focus of the institute. Hence, initiative was taken a decade ago, to conduct National level conferences with two pre conference preparative workshops.

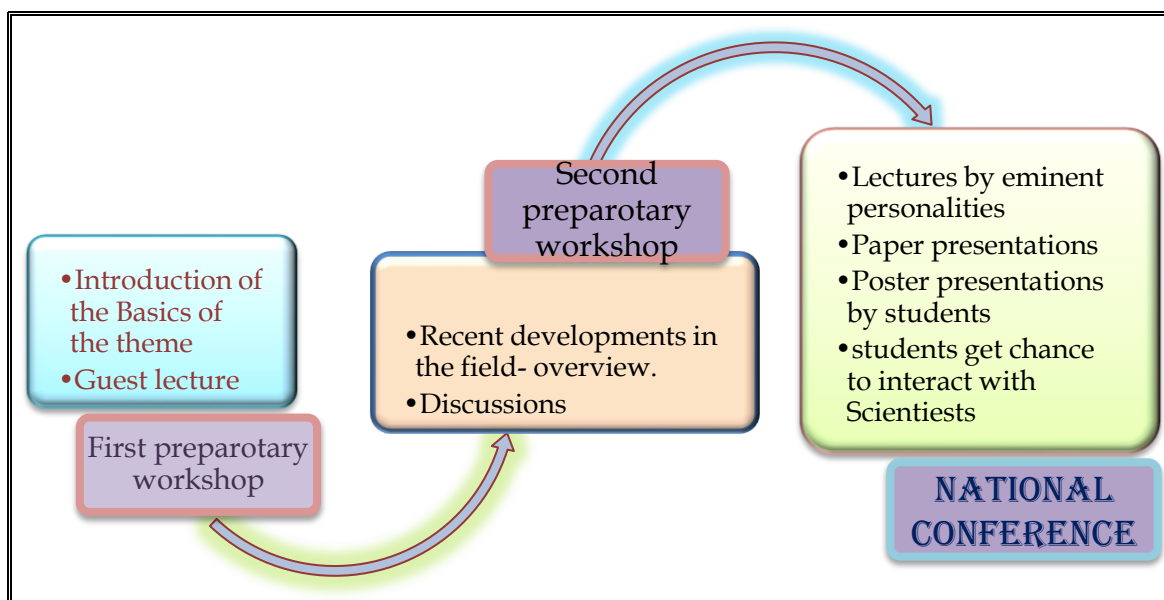
Goal:

- To give students an early exposure
- To make them familiar with the concepts of scientific data generation, analysis and presentation
- To update and upgrade the knowledge in their respective fields
- To facilitate the interaction between academia and industry

The practice:

The college has been organizing various national level conferences with a belief that the best and latest academic research would reach the students at undergraduate level. Since 2002, every year one department undertakes the organization of conference on a recent topic in the respective field. The conference enrolment and participation is open for all the students and teachers of the college and also for outsiders. Contributions are also invited from other colleges, universities, innovators, professionals from industries, researchers etc. This provides much required platform for open discussions among the industry and academia.

The announcement of every conference is done one year prior and the events related to the conferences are included in the academic calendar of the college. This helps all interested people plan their activities and help them span all the possibilities of their contribution in the actual conference. The announcement of the conference and related events are also uploaded on college web site. The planned schedule is meticulously followed



In order to bring the students on the level of knowledge at which they can grasp the concepts and ideas delivered by senior scientists during the actual conference, two preparatory workshops are conducted prior to every conference. These are planned with a gap of



approximately 3 months. These workshops are focused on making students aware about basics of research hypothesis, paper and poster presentation. This facilitates the development of students' organizational and oral communication skills and help boost their self-confidence.

These conferences are playing a major role of motivating students as well as faculty to engage more and more in research. And it is proving professionally rewarding experience for the teachers.

Teachers are taking up mini research projects and are giving opportunity for group of students to work on the experiments. The data generated through this is presented during the conference either by students or by guiding faculty.

The certificate of participation and contribution is provided to all students as well as faculty members. The presentations of full paper are published in conference proceedings that are having ISSN numbers. All the proceedings are uploaded on college website making them available for online referencing.

Many benefits of this innovative teaching aid include helping learners improve comprehensive skills, conceptual understanding, and relieving anxiety or boredom by presenting information in a new and exciting way.

Obstacles faced/Problems encountered:

- Limited Time and Funds available.
- Limited motivation and willingness among the students to take interest in the opportunities provided by the college at early stage.

Impact of Practice / Evidence of Success:

- The students who are pursuing higher studies are well versed with research scenario, research methodology and format of publications.
- Conferences are serving as good networking platform for the participants and have helped students to make informed decision about the career.
- Through these conferences we are successful in encouraging open and honest dialogue among the armature researchers, guiding scientists, and industry professionals.
- In spite of time constraints approximately 225 students have presented and participated in the in-house conferences so far.

Resources required:

- ✓ Supportive management and encouragement from leader
- ✓ Uninterrupted efforts by faculty
- ✓ Motivated research minds

Best Practice – 2

Title:

Imparting value education through the program 'Jagar Janivancha'

Context:

Refinement of ethics and self enlightenment are the superlative motives of education. Current education system is more grade oriented, materialistic and has overlooked the

supreme goal of education. Unintentionally, the system has failed to incorporate the learning of Moral and ethical values to our studies which are the most essential components required for nourishment of character. Degradation and demoralized life and total disregard for values are what we experience often. Under such circumstances, ethics and values need to be imbibed among the students at every level in education. And that imparts a huge responsibility on teachers to be a role model to emulate.

Goal:

- To make students responsive towards various social issues.
- To make students aware about their social responsibilities and social rights.
- To assist students think about and reflect upon positive universal values.
- To motivate individuals to choose their own positive personal, social, moral and spiritual values.
- To make everyone aware of ways for developing as world citizens.

The practice:

Creating well- informed and conscious workforce is the main motto of education. Through a campaign named 'Jaagar Janivancha', the college is undertaking numerous activities that are focused on making the holistic development of students which will ensure bright secured future workforce for the nation.



To make students aware about the environmental changes and the possible disastrous effects of human practices Paryavaran Pradnya Pariksha 2013 was held in the college. Through the questions which were focused on different environment related issues students were made responsive.



Through the essay competition, story writing competition various societal issues are given to the students as subjects and students are made to express their views using their skills. 'Gender equality' is the major issue that is of great importance even in developed societies and students expressed themselves beautifully and confidently through various effective messages and paintings on the wall paper.

Various renowned personalities were invited to interact and enlighten students with the knowledge and to give insight about various less-tackled issues.

Understanding the need of current social scenario, in association with Women Development Cell a session was organized on self defense for girls.

The lectures were organized on Disaster management, Cancer awareness, importance of Balance diet, career guidance. A special awareness campaign was organized on Drug abuse.

The college has taken special efforts to develop entrepreneurship skills, cultural diversity, mental health to have holistically developed future citizens.

Obstacles faced/Problems encountered:

Being the students of science faculty the time spent by them in the college is more and so limited time available to students 'on field' for such activities.

Limited sustained manpower is the issue that is commonly faced by the organizers.

The activities like 'Prabhat Pheri' and awareness drives demand extra time engagement hence see limited response.

Impact of Practice / Evidence of Success:

The affectivity of campaign has made the college receive the second prize in 2012 and the following year the performance improved, and the college was recipient of the first prize at district level competition.

The students find it interesting and the active participation is seen during various activities.

Resources required:

- ✓ Human and monetary resources for guest lectures.
- ✓ Student volunteers for organizing various activities.
- ✓ Enthusiastic minds of the students.



***Post
accreditation
initiatives***

Post NAAC Initiatives.

Vidya Prasarak Mandal's B.N. Bandodkar College of Science has achieved an imperative position among the science colleges affiliated to the University of Mumbai. With emerging trends of IT, BNBCS realized that educational institutions will have to take radical steps to face new challenges. Since quality is a key factor of success, and realizing that quality is not an act but it is a habit, BNBCS adopted quality enhancement strategies, for continuous progress of the institution.

As said by John Ruskin, "Quality is never an accident, it is always the result of intelligent effort", college is committed to impart quality education by maintaining quality standards in all our processes.

Internal Quality Assurance Cell (IQAC) plays a vital role in maintaining and escalating the quality of the institution and it suggests quality measures. The concept of 'quality' in education was realized by IQAC through its Performance Excellence System (PES) which emphasizes on improving the key institutional academic and administrative processes for smooth functioning. The IQAC meets almost monthly to update the activities conducted in the College. Every year prior to the beginning of the academic year, IQAC designs a Perspective Plan in consultation with the Principal, and gives an account of the attainment of goal by the end of the academic year. IQAC conducts internal annual academic and administrative audit and prepares for external audit.

BNBCS believe that only sky is the limit for improvement, so we do self appraisal at each level like, teaching and non teaching staff, administration, activities etc. Efforts are taken to sustain the quality standards in every activity organized in college.

There has been a noteworthy development in the research performance of the college in the post accreditation period. The introduction of post graduate courses and other research oriented activities for UG. and PG. students, combined with financial support from various funding agencies had positive impact and it promoted research culture.

Post NAAC accreditation, as per the suggestions of NAAC Peer Team, we took deliberate measures to improve the quality of institution.

Table P(1) Suggestions by Peer Team and actions taken.

Criterion	Suggestions	Measures taken
Curriculum Aspects	<ol style="list-style-type: none"> 1. The college can add more courses like biochemistry, bioinformatics etc 2. The college may offer more Add On Courses 3. Formal mechanism for feedback is better option. 	<ol style="list-style-type: none"> 1. Started Biochemistry (2012-13) at UG level, EVS(2011-2012). & physics(2012-2013) at PG level. Three UG and one PG courses added in 2014-1015 2. Introduced Value added and --Skill development programmes. 3. Feedback forms designed. <ol style="list-style-type: none"> i. Online Feedback forms from students ii. SSI feedback from TY students iii. Self appraisal forms from teachers iv. Feedback from alumni.

<p>Teaching Learning and Evaluation</p>	<ol style="list-style-type: none"> 1. Formal mechanism to identify slow learners and Remedial lectures to be taken for those. 2. Departmental Libraries need to be strengthened. 3. More teachers need to improve their qualifications. 	<ol style="list-style-type: none"> 1. Slow learner/ weaker students are identified by observing their performance in test and in the examination. Remedial lectures are conducted prior to examinations. 2. Along with I.T and Biotech, departmental Libraries for Chemistry, Physics, Botany and Zoology are developed. 3. Two teachers have completed PhD. 10 are pursuing their PhD work. Many other teachers are involved in research activities, so there is a increase in the number of Research paper published and presentation.
<p>Research Consultancy and Extension</p>	<ol style="list-style-type: none"> 1. More teachers need to procure research projects and grants 2. More teachers need to do research and publish papers 3. A formal mechanism to promote consultancy may be required. 4. More social activities in the neighborhood may be undertaken. 	<ol style="list-style-type: none"> 1. Many teachers are granted funds for research projects from UGC/UOM 2. Number of research papers published in last five years is 196 and 142 papers are presented in various conferences/seminars. 3. Efforts are going on to promote consultancy. 4. (i). NSS residential camp in Mann Ashram Shala, Vikramghad is arranged. (ii.) Help is rendered to Sobati – A school for multiple disable students.
<p>Infrastructure and Learning resources</p>	<ol style="list-style-type: none"> 1. Counseling cell may be strengthened. 	<ol style="list-style-type: none"> 1. Full time counselor has been appointed.
<p>Student support & progression</p>	<ol style="list-style-type: none"> 1. Employment cell & Counseling cell may be further strengthened 2. WDC may be made more active. 3. Alumni association of the college may be activated 	<ol style="list-style-type: none"> 1. i. Full time counselor is appointed. ii. Employment cell organizes Career Melava. 2. WDC conducted informative lectures about Women Empowerment, Women Rights. 3. i. Every year alumni meet is organized. Alumni are invited to share their experiences and give the advice to the current students. ii. Lectures of alumni are arranged
<p>Governess and leadership</p>	<ol style="list-style-type: none"> 1. More teachers need to be encouraged to improve their qualification and soft skills. 	<ol style="list-style-type: none"> 1. Two teachers from Degree College and two teachers from Junior have completed their Ph.D degree and ten teachers from Degree are pursuing their studies for Ph.D degree. 2. Three teachers attended UGC sponsored short term course on soft skills

Innovation practices	<ol style="list-style-type: none"> 1. The IQAC may undertake regular internal quality audit of various departments and administrator of the college. 2. Annual Reports of Internal audit may be compiled and discussed with all concerned for implementation of the recommendations. 	<ol style="list-style-type: none"> 1. Internal audit is under taken from 2010-2011. 2. The audit reports are discussed with Heads and measures for improvement are suggested.
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With the corrective measures taken by the college, we are moving towards excellence. The following table represents current status after second cycle of accreditation.

Table P(2) : Comparative study between second and third cycle.

Particular details	Jan 2010	Jan 2015
Recognition for college	-	<ol style="list-style-type: none"> 1) "Best college Award"-UOM 2) FIST "O" level grant from DST 3) Jagar Janvancha 2nd prize Dist level – GOM 4) Jagar Janvancha 1st prize Dist level – GOM 5) RBNQA – Commendation Certificate-IMC Bajaj
Number of courses		
UG	10	13
PG		
1) M.Sc by papers	2	4
2) M.Sc. By research	4	6
3) Ph. D	3	5
Number of students		
UG	1142	1651
PG		
1) M. Sc by papers	52	132
2) M.Sc. By research	02	03
3) Ph. D	21	31
Number of staff		
1) Teaching Aided +Unaided	39 + 29	37 + 41
2) Non teaching Aided +Unaided	54 + 47	51 + 34
Details	During 2 nd cycle period	During 3 rd cycle period
Number of Rank holders	5	7
Number of staff with Ph.D	18#	18
Number of staff perusing Ph.D.	2	10
Number of students completing Ph. D	04	07

Number of projects completed + ongoing		
Major	03	05
Minor	11	19
Number of research papers published.	65	223
Number of research papers presented	33	65
Number of conferences /Workshops conducted.		
i. National	5	8
ii. State	1	2
iii. University level/district level	3	16
Number of staff involved in research activity	25	49
Publication by college		
Journal	-	01
Proceedings	04	06
Infrastructure *		
Number of Labs	20	23
Number of books in the library.	19586	26319
Number of computers	154	229
Number of Books given to students under Book Bank	204 / 166	874 / 379
Number of activities		
1. Extension programmes	02	05 (DLLE+ Jagar Janivancha)
2. NSS programmes	19	
3. Research (for UG students)	01	
4. Skill development courses	-	
		32
		02
		06

One retired, Two were surplus staff from other Institutes

In addition to action plans the following initiatives are taken to perk and sustain quality.

- ✓ Wide range of activities to ensure gender friendly premises.
- ✓ Eco friendly campus and creating environment awareness among the community by organizing exhibitions, poster competitions,
- ✓ Encouraging community based research in areas of waste management, waste water treatment, healthy diet etc.

- ✓ Organization of workshops for our teachers on career advancement scheme CAS for college teachers by IQAC.
- ✓ Yearly organization of minimum two lectures of eminent personality through Departmental clubs.
- ✓ Organization of National conference, together with two preparatory workshops giving International exposure to faculty and students by inviting International Guests.
- ✓ Orientation for newly recruited staff by the Principal and Examination committee.
- ✓ Orientation lecture by librarian for students and newly recruited staff about Library functioning.
- ✓ To Update the ICT knowledge IQAC conducted workshop for teachers and research scholars on LATEX in association with Physics department and also the workshop on Movie making in association with Research committee.
- ✓ Disaster management training for staff and students with TMC and Fire Brigade.
- ✓ Infrastructure improvement includes up gradation of computers, purchase of new and additional equipment as per the requirement of the curriculum, safety and security by installation of CCTV at strategic locations, procuring additional audio visual aids like TV, LCD projectors, to promote ICT enabled teaching.
- ✓ Workshops for lab assistants for computer literacy.
- ✓ Automation of all college financial accounting systems, computerization of college office work leading to e- governance. Information to students through web site. Communication between staff members through web-mail.

Apart from efforts made for sustaining the quality of education, BNBCS shoulders the responsibility as a part of the largest democracy by helping the Government in census survey and in preparations of electoral role. We provide space and personnel to the election commission, to conduct elections smoothly.

Our teachers have been recognized at various forums at the University level and local level. Students have excelled in academics and secured ranks at the University level. Students have participated in sports and have represented the college in University and National level. Many teachers are associated with NGO's and have contributed to the well-being of the society.

As per our goal of modeling students as architect of Nation Building, we encourage our students to participate in various forums working for social cause.

We are confident that with the team of responsive management, dedicated teachers and hard working, supporting staff, BNBCS shall chase the perfection to catch excellence. Dreams can become a reality when we possess a vision that is characterized by the willingness to work hard, a desire for excellence and our responsibility to equal members of society. Desire is the key to motivation, but our determination and a commitment to excellence, and unrelenting pursuit of our goal will enable us to attain the success we seek.



Declaration by the Head of the Institution



Vidya Prasarak Mandal's

Tel. No. : 2533 65 07

B. N. BANDODKAR COLLEGE OF SCIENCE

'Jnandweep' Chendani, Thane - 400 601.

NAAC Reaccredited A Grade

Best College Award (University of Mumbai)

DR. (MRS.) M. K. PEJAVER
M. Sc., D.H.E., Ph. D.**Principal**
Reader, Head
(Dept. of Zoology)Website : <http://www.vpmthane.org>Email : prinbnb@vpmthane.orgbnb@vpmthane.org

Ref. No. BSC /

Date :

DECLARATION BY THE HEAD OF THE INSTITUTION


I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Date: February 24, 2015

Place: Thane


Dr. (Ms) M.K. Pejaver
Principal
B.N. Bandodkar College of Science,
Thane



Certificate of Compliance



Vidya Prasarak Mandal's

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Certificate of Compliance

Certificate of Compliance

This is to certify that Vidya Prasarak Mandal's B.N. Bandodkar College of Science, Thane fulfils all norms stipulated by the University of Mumbai and the affiliation and recognition is valid as on date.

In case the affiliation/recognition is conditional, then a detailed enclosure with regards to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled, automatically, once the institution loses its University affiliation or Recognition by the regulatory Council, as the case may be.

In case the undertaking submitted by our institution found to be false then the accreditation given by NAAC is liable to be withdrawn.

The undertaking given to NAAC is also displayed on our institutional website.

Date: February 24, 2015

Place: Thane

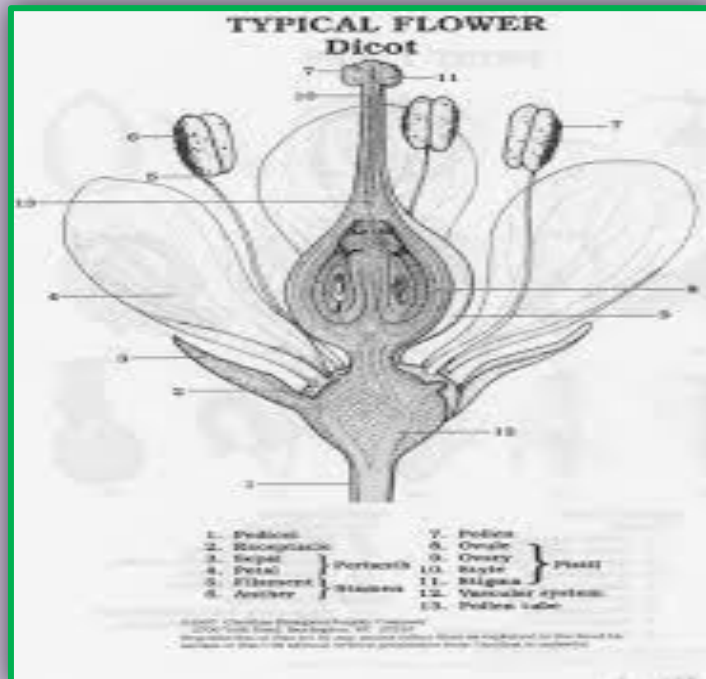

Dr.(Ms) M.K. Pejaver
Principal

B.N. Bandodkar College of Science, Thane



Part II
Evaluative Report of
the Departments

Department of Botany





Department of Botany

Botany

1.	Name of the department	BOTANY															
2.	Year of Establishment	June 1969															
3.	Names of Programmes / Courses offered	B.Sc.- Botany M.Sc. – Botany (By Research) Ph.D															
4.	Names of Interdisciplinary courses and the departments/units involved	Nil															
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.															
6.	Participation of the department in the courses offered by other departments	Environmental Science: M.Sc.															
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil															
8.	Details of courses/programmes discontinued (if any) with reasons: Nil																
9.	<p>Number of Teaching posts:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Sanctioned</th> <th style="width: 35%;">Filled</th> </tr> </thead> <tbody> <tr> <td>Professors</td> <td>--</td> <td>--</td> </tr> <tr> <td>Associate Professors</td> <td>3</td> <td>3</td> </tr> <tr> <td>Asst. Professors</td> <td>3</td> <td>2 + 3*</td> </tr> <tr> <td>Total</td> <td>6</td> <td>8</td> </tr> </tbody> </table> <p style="margin-top: 10px; color: blue;">*2 teachers appointed by the management 1 full time and 2 on clock hour basis as there is increase in the workload.</p>			Sanctioned	Filled	Professors	--	--	Associate Professors	3	3	Asst. Professors	3	2 + 3*	Total	6	8
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10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)																																																															
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12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.	F.Y. B.Sc. Lectures: 25%; Practicals 33% S.Y.B.Sc. Lectures: 40%; Practicals: 33% T.Y.B.Sc. Lectures: 33%; Practicals: 20%																																																														
13.	Student -Teacher Ratio (programme wise)	FY- 17:1, SY- 13:1, TY - 4:1																																																														



14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled Sanctioned : 05 Filled : 05																																	
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph.D: 05 PG : 02																																	
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : Nil																																	
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received :																																	
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18.	Research Centre /facility recognized by the University		M. Sc by Research and Ph.D																															



19.	Publications: Number of publications From Jan 2010- Nov.2014					
	Sr. No.	Name of the faculty	International Journal	National Journal	Proceeding / College Journal	Books
	1.	Dr .M. S. Mulgaonkar	04	06	04	-
	2.	Dr. M. J. Kolet	03	17	13	-
	3.	Dr. Moitreyee Saha	02	12	02	01
	4.	Dr. V. M. Jamdhade	-	04	09	-
	5.	Dr. Urmila Kumawat	04	-	-	-
	6.	Ms. Shraddha Raut	-	-	04	-
	7.	Ms. Chetana Shetty	-	-	02	-
20.	Areas of consultancy and income generated.: Nil					
21.	Faculty as members in a. International Committees : 04 b. National committees : 04 c. Editorial Boards : 04					
22.	Student projects a) Percentage of students who have done in-house projects including inter departmental / programme: F.Y - 4 %, S.Y - 4 % and T.Y - 8 % b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil					

23.	Awards/ Recognitions received by faculty and students:			
	Faculty:			
	❖ Dr. (Mrs.) M.S. Mulgaonkar			
	1. Received “Pradnyanand Puraskar” in recognition of outstanding contribution in field of Botanical Sciences by Swananda Kala Prasarak Sanstha, Thane on 15 th February 2015.			
	2. Felicitated and awarded an excellence award by Indian Botanical Society, Mumbai Chapter in a Seminar on Prospects of Plant Sciences in 21 st Century organized by D.G. Ruparel College (Matunga) on Wednesday 9 th Feb. 2011.			
	❖ Dr. Moses Kolet was awarded the 12 Years Long service medal for meritorious service in NCC by the Government of India (Year 2007-2010).			
24.	List of eminent academicians and scientists/ visitors to the department			
	Sr. No	Name of the person	Designation	Purpose of the visit
	1.	Dr. Nitin Desai	Dean, Faculty of Science, Dr. D. Y. Patil Institute (Deemed University)	Chief Guest for Inauguration of Botany Club 2011-2012.
	2.	Dr. Siddhivinayak S. Barve	Head of the Botany Department and Associate Professor, K. G. Vaze College, Mulund, Mumbai.	Chief Guest for Inauguration of Botany Club 2012-2013
	3.	Dr (Mrs.) Geetha Menon	Associate Professor, Department of Botany, RKT College, Ulhasnagar	Judge for Flower Arrangement Competition - 2013-2014
	4.	Dr. Jeewan Singh Jalal	Scientist “C” Botanical Survey of India Pune	Chief Guest for Inauguration of Botany Club 2014-2015
	5.	Dr. Santosh Kumar Agarwal	Associate Professor and Head D. B. S. P. G. College, Dehradun	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
	6.	Dr. Pattanathu, K.S.M. Rahman	Biotechnology Programme Leader, School of Science and Engineering, Teesside University UK.	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
	7.	Dr. Anil Kumar Goel	Chief Scientist and Head, Botanical Garden, NBRI Lucknow.	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015



8.	Dr. Abhishek Baghela	Scientist, National Fungal Culture Collection, MACS, Agharkar Research Institute, Pune, India	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
9	Dr. Shashi Menon	TDM Laboratories, Mumbai	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
10.	Dr. B.F. Rodrigues,	Professor and Head, Dept. of Botany, Goa University, Goa.	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
11.	Dr. Sanjay Deshmukh,	Professor, Dept. of Life Sciences, University of Mumbai;	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
12.	Dr. M.C. Srinivasan,	Scientist (Retd.) National Chemical Laboratory, Pune;	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
13.	Dr. Ashish Tendulkar	TIFR, Mumbai	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
14.	Dr. M. R. Almeida	Retired Head Department of Botany St. Xavier's College ,Mumbai	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015
15.	Dr. A.R.Kulkarni	Retired Professor and Head Department of Life science University of Mumbai	Invited guest speaker National Conference on New and Emerging Trends and Taxonomy 2014-2015



25.	<p>Seminars/ Conferences/Workshops organized & the source of funding</p> <p>a) International : Nil</p> <p>b) National : 02</p> <table border="1" data-bbox="269 394 1466 741"> <thead> <tr> <th>Sr. No</th> <th>Title</th> <th>Source of funding</th> <th>Funds received</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>“Evolving of Scientific terminology in Environmental Science in regional language” June 2011.</td> <td>Ministry of HRD Govt. of India New Delhi</td> <td>100 % expenses were done by Govt. of India.</td> </tr> <tr> <td>2.</td> <td>“New and Emerging Trends in Bioinformatics and Taxonomy” January 14 and 15, 2015</td> <td>1. NABARD 2. UGC</td> <td>98,000/- Awaiting for funds.</td> </tr> </tbody> </table>	Sr. No	Title	Source of funding	Funds received	1.	“Evolving of Scientific terminology in Environmental Science in regional language” June 2011.	Ministry of HRD Govt. of India New Delhi	100 % expenses were done by Govt. of India.	2.	“New and Emerging Trends in Bioinformatics and Taxonomy” January 14 and 15, 2015	1. NABARD 2. UGC	98,000/- Awaiting for funds.																				
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28.	<p>How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?</p> <p>01 completed NET examination in June 2014.</p>																																

29. Student progression

Student progression	Against % enrolled
UG to PG	50%
PG to M. Phil.	N.A
PG to Ph.D.	N.A
Ph.D. to Post-Doctoral	N.A
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	Nil 50%
Entrepreneurship/Self-employment	N.A

30. Details of Infrastructural facilities

a)	Library	Books are available in the central library and some basics books available in the departmental Library
b)	Internet facilities for Staff & Students	Available
c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.
d)	Laboratories	Computers with net connectivity are available and with loaded software used for Bio informatics practical.

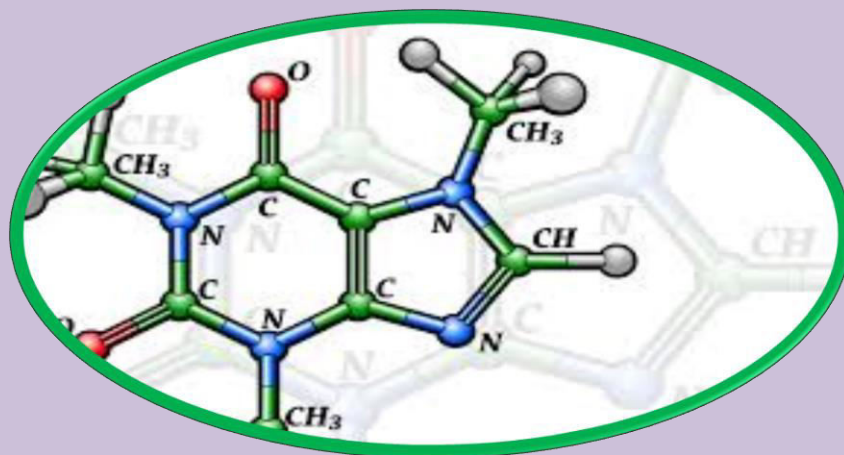
31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V.</p> <p>Table: B31 No. of T.Y. B.Sc. students getting financial assistance:</p> <table border="1" data-bbox="261 520 1458 1062"> <thead> <tr> <th>Year</th> <th>Govt. Scholarship</th> <th>Govt. Freeships</th> <th>Any other financial aid</th> <th>Total no. of students</th> </tr> </thead> <tbody> <tr> <td>2013 – 14</td> <td>6</td> <td>5</td> <td>Nil</td> <td>11</td> </tr> <tr> <td>2012 – 13</td> <td>3</td> <td>5</td> <td>Nil</td> <td>8</td> </tr> <tr> <td>2011 – 12</td> <td>1</td> <td>3</td> <td>Nil</td> <td>4</td> </tr> <tr> <td>2010 – 11</td> <td>1</td> <td>3</td> <td>Nil</td> <td>4</td> </tr> </tbody> </table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2013 – 14	6	5	Nil	11	2012 – 13	3	5	Nil	8	2011 – 12	1	3	Nil	4	2010 – 11	1	3	Nil	4
Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students																						
2013 – 14	6	5	Nil	11																						
2012 – 13	3	5	Nil	8																						
2011 – 12	1	3	Nil	4																						
2010 – 11	1	3	Nil	4																						
32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <ol style="list-style-type: none"> 1. Departmental club activities: - every year two programmes are arranged. 2. Department organizes Botanical Excursion for F.Y, S.Y and T.Y students separately every year. 3. Certificate course on Home Scale Preparation of Fruit Jams, Squashes and Syrups is conducted every year. 																									
33.	<p>Teaching methods adopted to improve student learning</p> <p>Class Room Teaching:</p> <ul style="list-style-type: none"> • Use of Laptop and LCD projector • Use of computerized interactive study materials <p>Instructional methods:</p> <ul style="list-style-type: none"> • Observation and Performance methods (Practical Training) • Hands on Training (instruments and methods) • Field outings study tours and excursions for all classes • Allotment of Research Projects to students 																									



34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <ol style="list-style-type: none">i. Our staff members worked as a Enumerator and Supervisor in National Census 2011ii. Our staff members worked as Presiding officer, counting officer Loksabha and vidhansabha electioniii. One Staff member worked as Co-ordinator of WDCiv. One Staff Member worked as Co-ordinator of NCCv. Two staff member worked as Member of NSS committee
35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ol style="list-style-type: none">i. Our teaching staff members are specialized in different branches of botany.ii. All the confirmed teaching staff members hold Ph.D. degrees and are P.G. Recognized teachers and Research guides.iii. Staff members contribute to various interdisciplinary activities in the collegeiv. Research is carried out in the department and research papers are publishedv. Our department recognized as a well known Orchid Research centre in India and only one in Maharashtra.vi. Our staff members are members of advisory of scientific journal and Scientific Society/Association and members of BOS Mumbai University and S. N. D. T. University. <p>Weakness:</p> <ol style="list-style-type: none">i. Shortage of laboratory spaceii. Qualified permanent staff yet to be appointediii. Well equipped research laboratory is lacking <p>Opportunities:</p> <ol style="list-style-type: none">i. Keenly interested students.ii. Research opportunities.iii. Facilities, encouragement and infrastructure provided by our management. <p>Challenges:</p> <ol style="list-style-type: none">i. Operating in conditions of space constraints- relatively less laboratory space.ii. New courses being started in house as well as outside. <p>Future Plans:</p> <ol style="list-style-type: none">i. To develop research skill in Mycology and Plant Pathology and establish a well known research laboratory in near future.ii. To apply for research grants from various agencies for conduction specialized and focused research.iii. To organize National Conferences related to current trendsiv. To provide better facilities to students.v. To organize skill oriented courses in the subject.



Department of Chemistry





Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years	
					Ph. D	M.Sc. By Research
Mrs. M. M. Ranade	M.Sc., D.H.E	Associate Professor	Organic Chemistry	35	Nil	Nil
Mr. D. R. Ambavadekar	M.Sc. M. Phil	Associate Professor HOD	Organic Chemistry	30	Nil	Nil
Dr. M. V. Rathnam	M.Sc., Ph.D	Associate Professor	Physical Chemistry	30	8	4
Mr. P. G. Bamane	M.Sc.	Associate Professor	Inorganic Chemistry	29	Nil	Nil
Dr. U. R. Pandit	M. Sc., Ph.D	Associate Professor	Analytical Chemistry	29	Nil	Nil
Dr.(Mrs.) A. S. Goswami-Giri	M. Sc., Ph.D. FISST, PGD Admin & Sup	Assistant Professor	Biochemistry	19	Nil	4
Mr. A. N. Bhumkar	M. Sc	Assistant Professor	Organic Chemistry	2	Nil	Nil
Mr. P.S. Wagh	M.Sc.	Assistant Professor	Inorganic Chemistry	5	Nil	Nil
Dr. S. S. Kahandal	M.Sc. Ph. D.	Assistant Professor	Analytical Chemistry	1	Nil	Nil
Dr. P. V. Jagasia (Surplus & transfer to her college on Dec14.)	M. Sc, Ph.D	Assistant Professor	Organic Chemistry	19	Nil	Nil
Ms. Chanchal Yadav	M. Sc	Assistant Professor	Organic Chemistry	01	Nil	Nil



	Ms. Nivedita Singh	M. Sc.	Assistant Professor	Physical Chemistry	06 months	Nil	Nil
	Ms. Parimal Jolly	M. Sc.	Assistant Professor	Physical Chemistry	06 months	Nil	Nil
	Ms. Smitha Sonawane	M. Sc.	Assistant Professor	Organic Chemistry	06 months	Nil	Nil
11.	List of senior visiting faculty			Nil			
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.			F.Y : 61 % S.Y : 39.81 % T.Y : 02 % M.Sc. : 12.5 %			
13.	Student -Teacher Ratio (programme wise)			FY- : , SY- , TY -			
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled Administrative staff – 04 (Lab Assistant) and Support staff – 10						
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph.D: 04 PG : 10						
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : 01 sponsored by UGC.						
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Research Project grants received Rs 19, 65, 199 /-.						
	Sr. No	Name of investigator	Title of project	Funding Agency & year	Amount in Rs.		
	1.	Dr. M.V. Rathnam	“Study of Organic liquid-Chemistry of liquid mixtures of ester in cyclic ethers.”	UGC, New Delhi	5,84,999/-		
	3.	Dr. Aparna Bhardwaj	Spectrophotometric Analysis of different species of Tagetuserecta UL Colourant at different pH value	University of Mumbai	20,000/ -		
	4.	Dr. Pooja Jagasia	“Septrophotometric Determination of onions by solvent extraction using a specific reagent”	University of Mumbai	20,000/-		



5.	Dr. (Mrs.) Anita Goswami – Giri	Severance of L-dopa from <i>Solanum Xanthocarpum</i> .	University of Mumbai	27,400/-	
6.	Dr. Pooja Jagasia	The Spectrophotometric determination of Tannins, Vitamin C and anion using a specific reagent in herbal formulation, synthetic mixtures and real samples	UGC Regional Office	85000/-	
18.	Research Centre /facility recognized by the University	<ul style="list-style-type: none"> • M.Sc. research Ph.D. from University of Mumbai • University of Allagapp , Shri Jagdish Prasad Jhabarmal Tibrewala University (JJTU) Rajasthan. 			
19.	Publications: Number of publications From Jan 2010- Nov.2014				
	Sr. No.	Name of the faculty	International Journal	Proceeding / College Journal	Co-Authored Books
	1.	Dr. M.V. Rathnam	36	-	-
	2.	Mr D.R.Ambawadekar	1		
	3.	Dr. (Mrs.) Anita Goswami – Giri	25	16	1
	4.	Dr. Aparna Bhardwaj	3		
	5.	Dr. Pooja Jagasia	3		1
20.	Areas of consultancy and income generated: Nil				
21.	Faculty as members in a. International Committees : 04 b. National committees : Nil c. Editorial Boards : 02				
22.	Student projects a) Percentage of students who have done in-house projects including inter departmental / programme: S.Y : 18 %, T.Y : 5.7 %, M.Sc. : 100 % in the year 2011-12 & 2014 - 15 b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil				

23.	<p>Awards/ Recognitions received by faculty and students:</p> <p>Faculty:</p> <p>❖ Dr. (Mrs.) Anita Goswami - Giri</p> <p>➤ Awards:</p> <ol style="list-style-type: none">1. Samaj Bhushan Puraskar -14th July 2011 by Rashtriya Mahila and Handicapped Sanstha Kalyan. For service rendered toward mentally and physically handicapped students.(National Level)2. Yashwantrao Chavan Samata Gaurav puraskar- 18th June 2010 (By Maitri and Sawali Sanstha) for excellence in the field of Science and Education. (State Level).3. Krantijyoti Savitribai Phule Aadarsha Samaj Sevika Puraskar -18th July 2010 by Rashtriya Mahila and Handicapped Sanstha Kalyan. For service rendered toward mentally and physically handicapped students. (National Level) .4. Shikshak Bhushan Puraskar – 25th September 2010 by Nyaic Lada Patrakar Seva Sanstha. For the inculcating Sanskruti, Sanskar, Morals values and Social responsibilities of society and personality development among students. (State Level).5. Lok-Ratna Rashtriya Puraskar A.BHA. Kala Sahitya ,Sanskriti Academy, Vardha, 24th October 2010. (National Level)6. Paryavaran Puraskar by Bharatmata Bhauddeshiya Sanstha Naldurga Tulajapur, Usamanabad. <p>Students :</p> <p>A) Awarded Ph.D Degree under the guidance of Dr M. V. Rathnam:</p> <ol style="list-style-type: none">1) Mr. Kirti Jain: Evaluation of excess thermodynamic and transport properties of some binary liquid mixtures (aliphatic esters + aromatic hydrocarbons.) (2012)2) Mr. Sharad Dattatray Mankumare: Molecular interaction studies of binary liquid mixtures of sters with aliphatic hydrocarbons.(2012)3) Mr. Abhinay Chandrakant Pise: Study of chemistry and application of polymer chitosan and its monomer glucosamine.(2013)4) Mr. Rajeev Kumar: Modern analytical techniques spasmodic drug in combination. (2013)5) Mr. Sudhir Jayasing Mangal Mohite: Thermodynamic properties of ester+ketone binary mixture solvents. (2014) <p>B) For Paper Presentation</p> <ol style="list-style-type: none">1. Sindhu Tayade : Paper presented for awarded IIInd prize entitled, Behaviour of <i>Solanum xanthocarpum</i> leaves alkaloids due to surfactants at National Conference Saraswati Engineering College, Kharghar Thane dated 3rd to 4th March 2010.
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	<p>2. Neha Sawant : Paper presented for awarded IInd prize entitled, “Congenial practices for greener and safer world” International Conference on “Ecoevolution.” held at Aurangabad. 19-20 Feb.2011 and published in journal Bionano frontier.</p> <p>3. Rashmi Sharma: A paper presented and Award Ind position entitled, “Significance of pesticides.” National Conference on “Environmental overviews and issues.” held at Department of Chemistry, Bhausaheb Nene College Pen. December 15, 2014.</p>																				
24.	<p>List of eminent academicians and scientists/ visitors to the department Eminent personalities visited for National Conferences are given in table 3.7.4(1). Personalities visited for Club Activities are given below.</p> <table border="1"><thead><tr><th>Sr. No</th><th>Name of the person</th><th>Designation</th><th>Purpose of the visit</th></tr></thead><tbody><tr><td>1.</td><td>Dr Jean Cadet 23rd January, 2013</td><td>Director , Atomic energy</td><td>To give lecture on Oxidatively generated and photo-induced damage to DNA</td></tr><tr><td>2.</td><td>Dr Dhage Shivani</td><td>Dy Director , NEERI</td><td>To inaugurate Chemistry club 2013</td></tr><tr><td>3.</td><td>Mr.Vidyadhar Walavalkar;</td><td>V.P.M. Polytechnique College, Thane on 6th August 2014.</td><td>To inaugurate Chemistry club 2014-“Environmental Everyday- Green Carrers</td></tr><tr><td>4.</td><td>Dr. Nupur Mehrotra</td><td>Co-ordinator Of Biochemistry, Mithibai College</td><td>To inaugurate Certificate course “Basic Principles: Preparation and Standardization of Solutions.”7th August to 9th August, 2014</td></tr></tbody></table>	Sr. No	Name of the person	Designation	Purpose of the visit	1.	Dr Jean Cadet 23 rd January, 2013	Director , Atomic energy	To give lecture on Oxidatively generated and photo-induced damage to DNA	2.	Dr Dhage Shivani	Dy Director , NEERI	To inaugurate Chemistry club 2013	3.	Mr.Vidyadhar Walavalkar;	V.P.M. Polytechnique College, Thane on 6 th August 2014.	To inaugurate Chemistry club 2014-“Environmental Everyday- Green Carrers	4.	Dr. Nupur Mehrotra	Co-ordinator Of Biochemistry, Mithibai College	To inaugurate Certificate course “Basic Principles: Preparation and Standardization of Solutions.”7 th August to 9 th August, 2014
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4.	Dr. Nupur Mehrotra	Co-ordinator Of Biochemistry, Mithibai College	To inaugurate Certificate course “Basic Principles: Preparation and Standardization of Solutions.”7 th August to 9 th August, 2014																		
25.	<p>Seminars/ Conferences/Workshops organized & the source of funding</p> <p>a) International : Nil</p> <p>b) National : 02</p> <ul style="list-style-type: none">• Avenues on scientific research grant, 18th August, 2011.• Phytochemistry – Recent Trends and Challenges – 14th and 15th December, 2012 sponsored by UGC. <p>c) University Level : Workshop based on Syllabus.</p>																				



26. Student profile programme/course wise:

T.Y.B.Sc.

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	75	75	39	36	57.14%
2012-13	75	70	41	29	44.17%
2011-12	95	95	48	47	67.37%
2010-11	60	60	29	31	53.33%

M.Sc. :

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	7	7	3	4	57.14%
2012-13	10	10	5	5	71.43%
2011-12	10	10	4	6	71.43%
2010-11	10	10	7	3	53.33%

* M = Male F = Female

27. Diversity of Students year: T.Y.B.Sc and M.Sc.

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	100	0	0
2012-13	100	0	0
2011-12	100	0	0
2010-11	100	0	0
2009-10	100	0	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? 01 Ph.D student joined Civil Service.



29. Student progression

Student progression	Against % enrolled
UG to PG	3%
PG to M. Phil.	N.A
PG to Ph.D.	N.A
Ph.D. to Post-Doctoral	N.A
Employed	
• Campus selection	N.A
• Other than campus recruitment	N.A
Entrepreneurship/Self-employment	N.A

30. Details of Infrastructural facilities

a)	Library	Books are available in the central library.
b)	Internet facilities for Staff & Students	Computers with internet facility are available in the department for staff and students.
c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.
d)	Laboratories	Three Laboratories

31. Number of students receiving financial assistance from college, university, government or other agencies:

Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V

Table: C 31 No. of T.Y. B.Sc. students getting financial assistance:

Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students
2013 – 14	13	5	NIL	18
2012 – 13	14	5	NIL	19
2011 – 12	15	11	1	27
2010 – 11	13	14	NIL	27



Table: C 31 No. of M.Sc. students getting financial assistance:

Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students
2013 – 14	4	2	NIL	6
2012 – 13	6	1	NIL	7
2011 – 12	5	2	NIL	7
2010 – 11	8	1	NIL	9

32. Details on student enrichment programme (special lectures / workshops / seminar) with external experts.
Regional level workshop for PG students on following topics-
- ❖ Basic in spectroscopy for PG students.
 - ❖ Career after PG in Chemistry.
 - ❖ Workshop on Career after Post-Graduation in Chemistry' and 'How to prepare for NET on September 07, 2013.
33. Teaching methods adopted to improve student learning
- Chalk and Talk.
 - Class Test.
 - ICT enabled lectures.
 - Demo
 - Origami
34. Participation in Institutional Social Responsibility (ISR) and Extension activities.
03 staff members are members of NSS committee and 4 staff members are engaged in college school complex activity.
35. SWOC analysis of the department and Future plans.
- Strengths:**
- Quality teaching, research activity, every year conducting seminar.
 - Extra practicals were arranged for medical background, late admission.
 - Inspiration lecture are arranged.
 - Lectures were conducted for slow learners/ remedial lectures for ATKT students.
 - S.Y.B.Sc., T.Y.B.Sc and M.Sc. students are motivated to participate in research activity.
- Weakness:**
- High Student: Teacher Ratio
 - More kits as well as instruments required ,
 - Lack of software for presentation of chemical/molecular formulae
 - Less Bridge courses and value added courses



Opportunities:

- Improve the laboratory facilities
- Train the newly appointed laboratory staff.
- Upgrade the result for M.Sc. and B.Sc.
- Conduct short term courses for capturing industrial market

Challenges:

- To make alumni association strong and arrange the programmes with their co-operation.
- To make the subject popular.

Future Plans:

To conduct activity for up gradation of students teachers and nonteaching staff.

1. Orientation programme for non-teaching laboratory staff for handling of equipments and preparation of chemicals
2. Bridge courses for F.Y. S.Y. and T.Y.B.Sc. students
3. Industrial visits for T.Y.B.Sc and M.Sc. students
4. Guest lectures – To update the knowledge
5. Projects to motivate/skill development of all students for project work



Department of Mathematics

Mathematics

1.	Name of the department	MATHEMATICS				
2.	Year of Establishment	1969				
3.	Names of Programmes / Courses offered	B.Sc.- Mathematics				
4.	Names of Interdisciplinary courses and the departments/units involved	Nil				
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.				
6.	Participation of the department in the courses offered by other departments	Nil				
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil				
8.	Details of courses/programmes discontinued (if any) with reasons: Nil					
9.	Number of Teaching posts:					
		Sanctioned	Filled			
	Professors	-	-			
	Associate Professors	-	-			
	Asst. Professors	04	03 + 02*			
	Total	04	05			
	* 02 teachers appointed by the management as there is increase in the workload.					
10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)					
	Name	Qualification	Designation	No. of Years of Experience	Specialization	No. Of seminars workshops attended in last 4yrs (2010-2014)
	Ms. M. T. Wankhede	M. Sc / SET	Assistant Professor & HOD	16 years	Pure Mathematics	10
	Ms. A. S. Shinde	M. Sc / SET	Assistant Professor	6 years	Pure Mathematics	20
	Ms. U. K. Patne	M. Sc / NET	Assistant Professor	4 years	Pure Mathematics	04



	Mr. P. K. Kudalkar	M. Sc	Assistant professor	1 year	Pure mathematics	01
	Mr. Rahul Katkam	M. Sc	Assistant professor	6 months	Pure Mathematics	Nil
11.	List of senior visiting faculty				N.A.	
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.				40 %	
13.	Student -Teacher Ratio (programme wise)				FY- 63:1 , SY- 32: 1 , TY - 5:1	
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled : 02					
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: PG : 05					
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil					
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : ❖ Ms. Akanksha Shinde received UGC minor research project worth 200000 /-for two years 2013-15 with the title “Computational methods for partial differential equations”.					
18.	Research Centre /facility recognized by the University				Nil	
19.	Publications: Number of publications From Jan 2010- Nov.2014					
	Sr. No.	Name of the faculty	International Journal	National Journal	Proceedings/ College Journal	
	1.	Ms. M. T. Wankhede	2	-	3	
	2.	Ms. A. S. Shinde	3	-	-	
20.	Areas of consultancy and income generated: Nil					
21.	Faculty as members in a. International Committees : Nil b. National committees : Nil c. Editorial Boards : Nil					
22.	Student projects a) Percentage of students who have done in-house projects including inter departmental / programme: 1 % b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil					



23.	Awards/ Recognitions received by faculty and students : Nil			
24.	List of eminent academicians and scientists/ visitors to the department			
	Sr. No	Name of the person	Designation	Purpose of the visit
	1.	Mr. Vijay Singh	Specialist officer, SBI	Departmental Club Activity
	2.	Mr. Nitesh Gawade	CEO, Edify Lab	Departmental Club Activity
	3.	Mr. Niketan Taware	Founder, Nirmala Console	Departmental Club Activity
	4.	Dr. Sudhakar Agarkar	Director, BRIMS	Workshop on Bhaskaracharya
	5.	Dr. Nithyasai Narayan	Associate professor, Ratnam College, Bhandup	Seminar on Recent Research Trends in Mathematics
	6.	Dr. Seema Purohit	Director, Navinchandra Mehata institute, Mumbai	
	7.	Dr. Selbi Jose	Associate professor, Institute of science	
	8	Prof Miriam Amit	Dean, Ben Gurion University at Eilat, Israel	Lecture on "Ethnomathematics , Integrating Culture and Classroom Experience : an International Perspectives"
25.	Seminars/ Conferences/Workshops organized & the source of funding			
	a)	International	: Nil	
	b)	National	: Nil	
	c)	State level	: Seminar on "Recent research trends in Mathematics" organized on December 08, 2012.	
	d)	University Level	: Workshop on Revised Syllabus	



26. Student profile programme/course wise: T.Y.B.Sc.

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	18	18	8	10	47.37
2012-13	25	25	8	17	33
2011-12	25	25	4	21	44
2010-11	25	25	13	12	66.66

* M = Male F = Female

27. Diversity of Students year: T.Y.B.Sc.

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	100	0	0
2012-13	100	0	0
2011-12	100	0	0
2010-11	100	0	0
2009-10	100	0	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil

29. Student progression

Student progression	Against % enrolled
UG to PG	20%
PG to M. Phil.	N.A
PG to Ph.D.	N.A
Ph.D. to Post-Doctoral	N.A
Employed	
• Campus selection	10%
• Other than campus recruitment	N.A

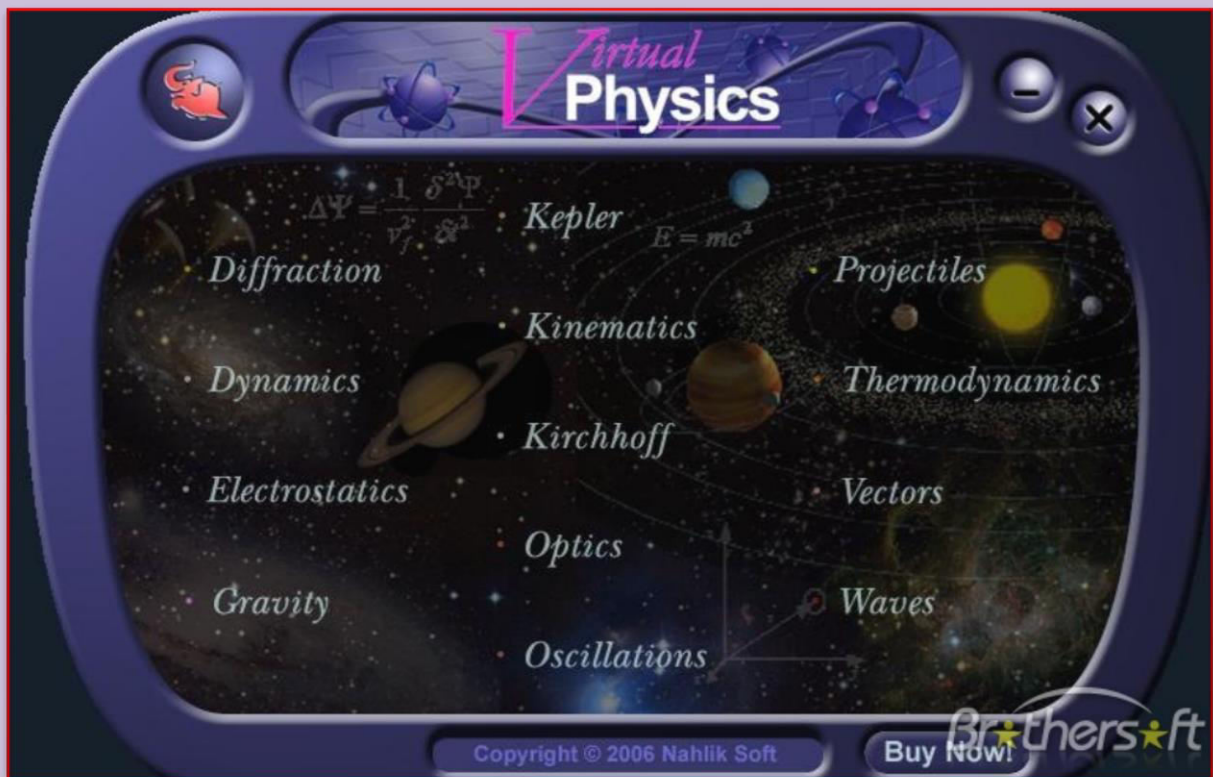
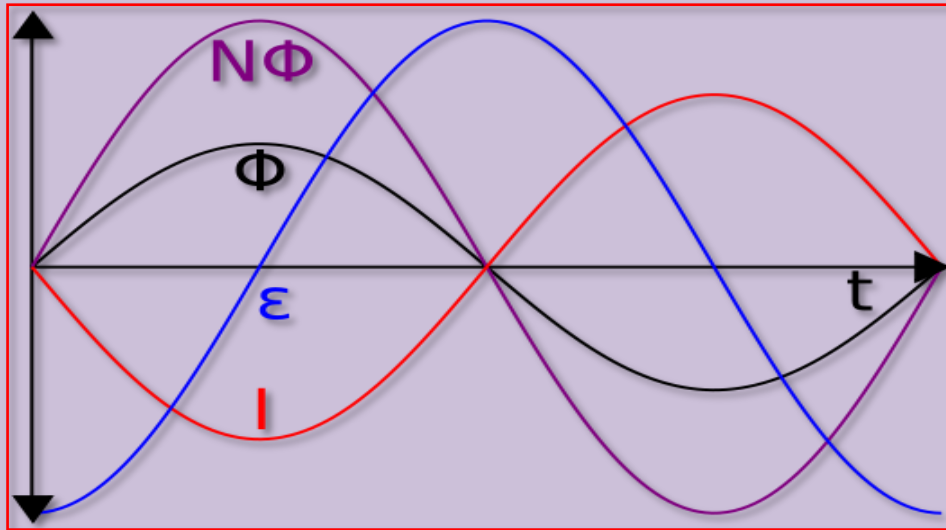
30.	<p>Details of Infrastructural facilities</p> <table border="1"> <tr> <td data-bbox="261 310 326 422">a)</td> <td data-bbox="334 310 850 422">Library</td> <td data-bbox="859 310 1442 422">Books are available in the central library.</td> </tr> <tr> <td data-bbox="261 432 326 527">b)</td> <td data-bbox="334 432 850 527">Internet facilities for Staff & Students</td> <td data-bbox="859 432 1442 527">Available</td> </tr> <tr> <td data-bbox="261 537 326 674">c)</td> <td data-bbox="334 537 850 674">Class rooms with ICT facility</td> <td data-bbox="859 537 1442 674">Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.</td> </tr> <tr> <td data-bbox="261 684 326 758">d)</td> <td data-bbox="334 684 850 758">Laboratories</td> <td data-bbox="859 684 1442 758">Computers with internet connectivity are available.</td> </tr> </table>	a)	Library	Books are available in the central library.	b)	Internet facilities for Staff & Students	Available	c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.	d)	Laboratories	Computers with internet connectivity are available.													
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31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V</p> <p>Table: M31 No. of T.Y. B.Sc. students getting financial assistance:</p> <table border="1"> <thead> <tr> <th data-bbox="261 1041 456 1125">Year</th> <th data-bbox="464 1041 743 1125">Govt. Scholarship</th> <th data-bbox="751 1041 1000 1125">Govt. Freeships</th> <th data-bbox="1008 1041 1235 1125">Any other financial aid</th> <th data-bbox="1243 1041 1455 1125">Total no. of students</th> </tr> </thead> <tbody> <tr> <td data-bbox="261 1136 456 1178">2013 – 14</td> <td data-bbox="464 1136 743 1178">3</td> <td data-bbox="751 1136 1000 1178">2</td> <td data-bbox="1008 1136 1235 1178">1</td> <td data-bbox="1243 1136 1455 1178">6</td> </tr> <tr> <td data-bbox="261 1188 456 1230">2012 – 13</td> <td data-bbox="464 1188 743 1230">1</td> <td data-bbox="751 1188 1000 1230">2</td> <td data-bbox="1008 1188 1235 1230">NIL</td> <td data-bbox="1243 1188 1455 1230">3</td> </tr> <tr> <td data-bbox="261 1241 456 1283">2011 – 12</td> <td data-bbox="464 1241 743 1283">2</td> <td data-bbox="751 1241 1000 1283">5</td> <td data-bbox="1008 1241 1235 1283">NIL</td> <td data-bbox="1243 1241 1455 1283">7</td> </tr> <tr> <td data-bbox="261 1293 456 1335">2010 – 11</td> <td data-bbox="464 1293 743 1335">2</td> <td data-bbox="751 1293 1000 1335">3</td> <td data-bbox="1008 1293 1235 1335">NIL</td> <td data-bbox="1243 1293 1455 1335">5</td> </tr> </tbody> </table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2013 – 14	3	2	1	6	2012 – 13	1	2	NIL	3	2011 – 12	2	5	NIL	7	2010 – 11	2	3	NIL	5
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32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <p>Departmental club activities: - Every year guest lectures are arranged.</p>																									
33.	<p>Teaching methods adopted to improve student learning</p> <p>Teaching methods :-</p> <ul style="list-style-type: none"> ▪ ICT enabled teaching. ▪ Question answer sessions. ▪ Group Discussion. ▪ Class tests 																									
34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <p>All the teaching staff members are actively involved in various committees like NSS, Admission, Examination, Attendance, Cultural, Gymkhana etc.</p>																									



35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ul style="list-style-type: none">✓ Dedicated staff. <p>Weakness:</p> <ul style="list-style-type: none">✓ Student teacher ratio is high. <p>Opportunities:</p> <ul style="list-style-type: none">✓ To create mathematical aptitude amongst the students. <p>Challenges:</p> <ul style="list-style-type: none">✓ Improvement in the result, research activities. <p>Future Plans:</p> <ul style="list-style-type: none">✓ Bridge remedial lectures, special coaching for slow learner.
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Department of Physics





Department of Physics

Physics

1.	Name of the department	PHYSICS				
2.	Year of Establishment	1969				
3.	Names of Programmes / Courses offered	B.Sc.- Physics M.Sc. – (By Papers) Ph.D				
4.	Names of Interdisciplinary courses and the departments/units involved	Nil				
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.				
6.	Participation of the department in the courses offered by other departments	Nil				
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil				
8.	Details of courses/programmes discontinued (if any) with reasons: Nil					
9.	Number of Teaching posts:					
		Sanctioned		Filled		
	Professors	8		-		
	Associate Professors			4		
	Asst. Professors			3 + 5*		
	Total	8		12		
* 5 teachers appointed by the management as there is increase in the workload.						
10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)					
	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
	Dr. M. N. Nyayte	Ph.D, M. Phil., M.Sc.	HOD Associate professor	Condensed matter physics	35	2
						Number of workshops/ seminars / conferences attended since 2010
						4



Prof. Venkatraman	M.Sc.	Associate professor	Solid state electronics	33	Nil	4
Prof. D. R. Choudhary	M.Sc., D.H.E	Associate professor	Electronics - I	33	Nil	15
Prof. S. G. Bapat	M.Sc., M. Phil.	Associate professor	Electronics - I	29	Nil	8
Prof. B. K. Mandlekar	M.Sc., SET, M.M.S.	Assistant professor	Electronics - I	14	Nil	4
Prof. S. S. Meshram	M.Sc., B.Ed.	Assistant professor	Electronics - I	16	Nil	23
Prof. U. B. Gokhe	M.Sc., B.Ed., NET	Assistant professor	Digital electronics	13	Nil	16
Prof. A. A. Koli	M.Sc., NET	Assistant professor	Astronomy and space science	3	Nil	-
Prof. S. R. Yadav	M.Sc., B.A.	Assistant professor	Electronics - I	2	Nil	-
Prof. G. R Ghanshyam	M.Sc.	Assistant professor	Physics	1	Nil	-
Prof. P. O. Singh	M.Sc.	Assistant professor	Electronics - I	1	Nil	-
Prof. N. Dubey	M.Sc.	Assistant professor	Astronomy and space science	2	Nil	-

11.	List of senior visiting faculty: <ul style="list-style-type: none"> ➤ Prof. Emiritus. ➤ Prof. Ajay Patwardhan ➤ Dr. Jyotirao ➤ Dr. S. Jain ➤ Prof. E. G. Ghatpande ➤ Prof. V. N. Pawar ➤ Dr. S. K. Karandikar ➤ Prof. Vedashankari 	
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.	40 %
13.	Student -Teacher Ratio (programme wise)	FY- 26:1, SY- 11:1 , TY – 5:1



14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled Administrative Staff- 2, Supportive staff -5																																	
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil / PG.: Ph.D: 01 M. Phil : 01 PG : 10																																	
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: 01																																	
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : National : Dr. M. N. Nyayte : Major research project funded by UGC Rs. 10,43,000 /- approx																																	
18.	Research Centre /facility recognized by the University	Ph.D, M.Sc. By Research.																																
19.	Publications: Number of publications From Jan 2010- Nov.2014																																	
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21.	Faculty as members in a. International Committees : Nil b. National committees : Dr. M. N. Nyayte (Indian Physics association, Indian national congress association, Indian academy of science) c. Editorial Boards : Nil																																	
22.	Student projects a) Percentage of students who have done in-house projects including inter departmental / programme: Nil b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil																																	
23.	Awards/ Recognitions received by faculty and students Students: 1) Mr. Kapil Bhorkar M.Sc. student attended ATSOA national camp by ARIES in March 2014. Faculty : Nil																																	



24.	List of eminent academicians and scientists/ visitors to the department																																														
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25.	Seminars/ Conferences/Workshops organized & the source of funding																																														
	a) International	:	Nil																																												
	b) National	:	Nil																																												
	c) University level	:	Nil																																												



26. Student profile programme/course wise: T.Y.B.Sc.

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	35	35	18	17	51.43%
2012-13	35	35	17	18	42.85%
2011-12	21	21	19	2	33.33%
2010-11	7	7	3	4	57.14%

* M = Male F = Female

27. Diversity of Students year: T.Y.B.Sc.

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	90	0	0
2012-13	100	0	0
2011-12	100	0	0
2010-11	100	0	0
2009-10	100	0	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil.

29. Student progression

Student progression	Against % enrolled
UG to PG	15 %
PG to M. Phil.	N.A
PG to Ph.D.	1 %
Ph.D. to Post-Doctoral	Nil
Employed • Campus selection • Other than campus recruitment	Data not available

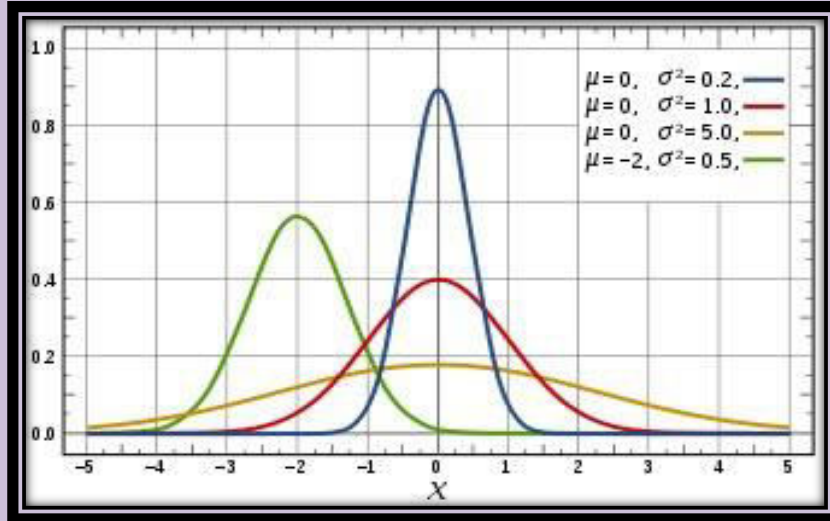
30.	<p>Details of Infrastructural facilities</p> <table border="1"> <tr> <td data-bbox="261 310 326 457">a)</td> <td data-bbox="334 310 854 457">Library</td> <td data-bbox="862 310 1442 457">Books are available in the central library and Department also maintains separate library with 340 reference books.</td> </tr> <tr> <td data-bbox="261 468 326 604">b)</td> <td data-bbox="334 468 854 604">Internet facilities for Staff & Students</td> <td data-bbox="862 468 1442 604">21 computers with internet facility are available in the department for staff and students.</td> </tr> <tr> <td data-bbox="261 615 326 741">c)</td> <td data-bbox="334 615 854 741">Class rooms with ICT facility</td> <td data-bbox="862 615 1442 741">Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.</td> </tr> <tr> <td data-bbox="261 751 326 835">d)</td> <td data-bbox="334 751 854 835">Laboratories</td> <td data-bbox="862 751 1442 835">Four laboratories. (02 main labs, 01 M.Sc. lab, 01 Research lab)</td> </tr> </table>	a)	Library	Books are available in the central library and Department also maintains separate library with 340 reference books.	b)	Internet facilities for Staff & Students	21 computers with internet facility are available in the department for staff and students.	c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.	d)	Laboratories	Four laboratories. (02 main labs, 01 M.Sc. lab, 01 Research lab)													
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2010 – 11	1	-	NIL	1																						
32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <ul style="list-style-type: none"> ❖ Seven lecture series named, “Guest lecture series by young scientist” was arranged during the period June, 2014 to Aug, 2014. ❖ Two day Workshop on Latex was conducted in collaboration with IQAC in 2012. 																									



33.	<p>Teaching methods adopted to improve student learning</p> <p>Teaching methods :-</p> <ul style="list-style-type: none">▪ Chalk and talk.▪ Discussion.▪ Class tests.▪ ICT enabled teaching.
34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <p>One staff member is the member of WDC, Jagar Janivancha and Sahityasahas.</p>
35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ul style="list-style-type: none">✓ Modern lab facilities, Qualified teaching faculty, Healthy and transparent academic environment. <p>Weakness:</p> <ul style="list-style-type: none">✓ Not so good result. <p>Opportunities:</p> <ul style="list-style-type: none">✓ Expansion of post graduate department and research. <p>Challenges:</p> <ul style="list-style-type: none">✓ Improving results of all classes and attracting good students. <p>Future Plans:</p> <ul style="list-style-type: none">✓ Scientific film club, popular lecture series, collaborative research work and Industrial visits.✓ To improvise result we personally contact students and try to solve their difficulties.✓ As per the plan we successfully build up the research lab with magnetic strain gauge system with data logger and a furnace, which is open to under graduates also. As a part of collaboration 3 capable students of T.Y. B.Sc. were encouraged to do project in CBS (Centre for excellence in Basic Sciences).



Department of Statistics





Department of Statistics

Statistics

1.	Name of the department	STATISTICS				
2.	Year of Establishment	1979				
3.	Names of Programmes / Courses offered	B.Sc.- Statistics				
4.	Names of Interdisciplinary courses and the departments/units involved	Nil				
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.				
6.	Participation of the department in the courses offered by other departments	<ul style="list-style-type: none"> • Information Technology, - B.Sc. and M.Sc. • Environmental Science: M. Sc. • Ph.D course work –Botany, Chemistry, Zoology, EVS. 				
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil				
8.	Details of courses/programmes discontinued (if any) with reasons: Nil					
9.	Number of Teaching posts:					
		Sanctioned	Filled			
	Professors	-	-			
	Associate Professors	04	04			
	Asst. Professors	-	01*			
	Total	04	05			
	* 01 teachers appointed by the management on clock hour basis as there is increase in the workload.					
10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)					
	Name	Qualification	Designation	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years	Number of workshops/ seminars / conferences attended since 2010
	Dr. Ashok P. Patil	M.Sc., M. Phil., Ph.D.	HOD, Associate. Professor	34 Years	N.A.	13



	Mrs. Milan J. Gholba	M.Sc., M.Phil	Associate Professor	34 Years	N.A	24
	Mrs. Sudha M. Phatak	M.Sc., M.Phil	Associate Professor	35 Years	N.A	10
	Dr.(Mrs.) Kalpana D. Phal	M.Sc., M. Phil., Ph.D.	Associate Professor	34 Years	N.A	13
	Ms. Divya V. Nair	M.Sc.	Assistant Professor (CHB.)	New	N.A	--
11.	List of senior visiting faculty			N.A.		
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.			16 %		
13.	Student -Teacher Ratio (programme wise)			FY- 30:1, SY- 16:1, TY - 6:1		
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled Administrative Staff- 1, Supportive staff -1					
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph.D: 02 M. Phil : 02 PG : 01					
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received National : One Project from UGC, New Delhi,					
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil					
18.	Research Centre /facility recognized by the University			N.A.		
19.	Publications: Number of publications From Jan 2010- Nov.2014					
	Sr. No.	Name of the faculty	International Journal	National Journal	Proceedings/ College Journal	
	1	Dr. A.P. Patil	4	-	-	
	2.	Prof. Ms. M. J. Gholba	-	-	4	
	3	Dr. Ms. K. D. Phal	3	-	-	
20.	Areas of consultancy and income generated. For statistical data analysis consultancy was given to research students / NGO free of cost.					



21.	<p>Faculty as members in</p> <p>a. International Committees : Nil</p> <p>b. National committees : Nil</p> <p>c. Editorial Boards : Nil</p>																
22.	<p>Student projects</p> <p>a) Percentage of students who have done in-house projects including inter departmental / programme: Nil</p> <p>b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil</p>																
23.	<p>Awards/ Recognitions received by faculty and students</p> <p>Students:</p> <p>Rank holders in the University for last four years.</p> <ol style="list-style-type: none"> 1) Mr. Tiwari Amitkumar Upendra stood Second in the Merit list of Science in University of Mumbai and First in the subject of Statistics at the T.Y.B.Sc. Examination held in March 2011. 2) Ms. Joshi Kanchan Vidyadhar stood Ninth in the Merit list of Science University of Mumbai at the T.Y.B.Sc. Examination held in March 2011. 3) Ms. Sneha Gawade stood fourth in the Merit list of Science in University of Mumbai and third in the subject of Statistics at the T.Y.B.Sc. Examination held in March 2012. 4) Mr. Sumit Belhekar stood Ninth in the Merit list of Science University of Mumbai at the T.Y.B.Sc. Examination held in March 2013 5) Ms. Arpita Mehendale and Ms. Shalaka Gadhave are DST Inspire awardees. <p>Faculty:</p> <ol style="list-style-type: none"> 1) Prof. Ashok P. Patil Award of degree of Ph.D. on topic “Computational Comparative Genomics of Poteo Bacteria” on 6th July 2014.from Veer Narmada University, Surat. 2) Ms. M.J. Gholba Certified examiner for ‘Quality Management by IMC Ramakrishna Bajaj National Quality Award Criteria’ for the year 2013. 																
24.	<p>List of eminent academicians and scientists/ visitors to the department</p> <table border="1" data-bbox="261 1570 1458 1894"> <thead> <tr> <th data-bbox="261 1570 380 1629">Sr. No</th> <th data-bbox="380 1570 716 1629">Name of the person</th> <th data-bbox="716 1570 1040 1629">Designation</th> <th data-bbox="1040 1570 1458 1629">Purpose of the visit</th> </tr> </thead> <tbody> <tr> <td data-bbox="261 1629 380 1703">1.</td> <td data-bbox="380 1629 716 1703">Dr. Mrs. Puja Thakkar</td> <td data-bbox="716 1629 1040 1703">Practicing Psychologist</td> <td data-bbox="1040 1629 1458 1703">Guest lecture on 5th Oct 2011.</td> </tr> <tr> <td data-bbox="261 1703 380 1839">2.</td> <td data-bbox="380 1703 716 1839">Mr. Sunil Shirvaikar</td> <td data-bbox="716 1703 1040 1839">Director, Operations, South Asia, IMS Health, Mumbai.</td> <td data-bbox="1040 1703 1458 1839">Lecture on Career in Statistics, 14th Jan 2012</td> </tr> <tr> <td data-bbox="261 1839 380 1894">3.</td> <td data-bbox="380 1839 716 1894">Dr Rajnish Raju</td> <td data-bbox="716 1839 1040 1894">Financial consultant.</td> <td data-bbox="1040 1839 1458 1894">Club activity.</td> </tr> </tbody> </table>	Sr. No	Name of the person	Designation	Purpose of the visit	1.	Dr. Mrs. Puja Thakkar	Practicing Psychologist	Guest lecture on 5 th Oct 2011.	2.	Mr. Sunil Shirvaikar	Director, Operations, South Asia, IMS Health, Mumbai.	Lecture on Career in Statistics, 14 th Jan 2012	3.	Dr Rajnish Raju	Financial consultant.	Club activity.
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25.	<p>Seminars/ Conferences/Workshops organized & the source of funding</p> <p>a) International : Nil</p> <p>b) National : Nil</p> <p>c) University level : Workshop on Revised Syllabus</p>																																
26.	<p>Student profile programme/course wise: T.Y.B.Sc.</p> <table border="1" data-bbox="345 478 1377 831"> <thead> <tr> <th rowspan="2">Name of the Course/programme</th> <th rowspan="2">Applications received</th> <th rowspan="2">Selected</th> <th colspan="2">Enrolled</th> <th rowspan="2">Pass percentage</th> </tr> <tr> <th>M*</th> <th>F*</th> </tr> </thead> <tbody> <tr> <td>2013-14</td> <td>26</td> <td>26</td> <td>13</td> <td>13</td> <td>84.00</td> </tr> <tr> <td>2012-13</td> <td>26</td> <td>26</td> <td>16</td> <td>10</td> <td>60.87</td> </tr> <tr> <td>2011-12</td> <td>23</td> <td>23</td> <td>13</td> <td>10</td> <td>60.87</td> </tr> <tr> <td>2010-11</td> <td>26</td> <td>26</td> <td>14</td> <td>12</td> <td>84.62</td> </tr> </tbody> </table> <p>* M = Male F = Female</p>	Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage	M*	F*	2013-14	26	26	13	13	84.00	2012-13	26	26	16	10	60.87	2011-12	23	23	13	10	60.87	2010-11	26	26	14	12	84.62
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30.	Details of Infrastructural facilities																									
a)	Library	Books are available in the central library.																								
b)	Internet facilities for Staff & Students	Available																								
c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.																								
d)	Laboratories	Computers with net connectivity are available and scientific calculators are there.																								
31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V</p> <p>Table: S31 No. of T.Y. B.Sc. students getting financial assistance:</p> <table border="1" data-bbox="261 1020 1458 1297"> <thead> <tr> <th>Year</th> <th>Govt. Scholarship</th> <th>Govt. Freeships</th> <th>Any other financial aid</th> <th>Total no. of students</th> </tr> </thead> <tbody> <tr> <td>2013 – 14</td> <td>5</td> <td>-</td> <td>NIL</td> <td>5</td> </tr> <tr> <td>2012 – 13</td> <td>2</td> <td>1</td> <td>NIL</td> <td>3</td> </tr> <tr> <td>2011 – 12</td> <td>1</td> <td>1</td> <td>NIL</td> <td>2</td> </tr> <tr> <td>2010 – 11</td> <td>2</td> <td>1</td> <td>NIL</td> <td>3</td> </tr> </tbody> </table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2013 – 14	5	-	NIL	5	2012 – 13	2	1	NIL	3	2011 – 12	1	1	NIL	2	2010 – 11	2	1	NIL	3
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32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <p>Departmental club activities: - Every year two guest lectures are arranged.</p> <p>Certificate course –“Basics of R – programming”</p>																									
33.	<p>Teaching methods adopted to improve student learning</p> <p>Teaching methods :-</p> <ul style="list-style-type: none"> ▪ Chalk and talk ▪ Problem solving sessions, ▪ Discussion. ▪ Seminars. ▪ Class tests. ▪ Personal attention depending on whether they are slow or advanced learners, ▪ ICT enabled teaching, ▪ Application oriented teaching 																									



34.	Participation in Institutional Social Responsibility (ISR) and Extension activities. Two staff members are members of WDC.
35.	SWOC analysis of the department and Future plans. Strengths: <ul style="list-style-type: none">✓ Sincere and dedicated working team of faculty members.✓ In spite of academically weak students the results were satisfactory. Weakness: <ul style="list-style-type: none">✓ Students coming from diverse backgrounds have problems in being attentive in the class room. Opportunities: <ul style="list-style-type: none">✓ To arrange statistical software courses for students Challenges: <ul style="list-style-type: none">✓ To improve communication Skills of the students Future Plans: <ul style="list-style-type: none">✓ To motivate students to do the project.✓ To conduct Workshop on “Statistics in Life sciences and Medicines”.



Department of Zoology





Department of Zoology

Zoology

1.	Name of the department	ZOOLOGY													
2.	Year of Establishment	June 1969													
3.	Names of Programmes / Courses offered	B.Sc.- Zoology M.Sc. – Zoology (By Research) Ph.D													
4.	Names of Interdisciplinary courses and the departments/units involved	Involved in Interdisciplinary course, Human Science, B.Sc. course													
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.													
6.	Participation of the department in the courses offered by other departments	Involved in teaching topics in Environment Science (M.Sc.), Interdisciplinary courses- ID-Zoology (B.Sc.), Human Science (B.Sc.)													
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil													
8.	Details of courses/programmes discontinued (if any) with reasons: Nil														
9.	Number of Teaching posts: <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 35%;">Sanctioned</th> <th style="width: 40%;">Filled</th> </tr> </thead> <tbody> <tr> <td>Professors</td> <td rowspan="3" style="vertical-align: middle;">8</td> <td>--</td> </tr> <tr> <td>Associate Professors</td> <td>5</td> </tr> <tr> <td>Asst. Professors</td> <td>2 + 2*</td> </tr> <tr> <td>Total</td> <td>8</td> <td>9</td> </tr> </tbody> </table> <p style="color: blue; margin-top: 5px;">*2 teachers appointed by the management as there is increase in the workload.</p>			Sanctioned	Filled	Professors	8	--	Associate Professors	5	Asst. Professors	2 + 2*	Total	8	9
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10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)						
	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years	
						Enrolled	Completed
	Dr. (Mrs.) M. K. Pejaver	M. Sc. (By Paper & Research) Ph. D. D.H.E.	Dean, Principal, HOD	Endocrinology	37	8	4
	Dr. (Mrs.) N. N. Patil	M.Sc. (By Paper & Research) Ph. D. D.H.E.	Associate Professor	Marine Zoology	37	-	1
	Dr. R. P. Athalye	M. Sc. Ph. D.	Vice Principal Associate Professor	Entomology	36	3	1
	Prof. S. D. Rathod	M. Sc.	Associate Professor	Fresh water biology	25	Nil	Nil
	Dr. (Mrs.) V. D. Manjramkar	M. Sc. Ph. D.	Associate Professor	Endocrinology	20	Nil	Nil
	Dr.(Mrs.) P.N. Kurve	M. Sc. Ph. D.	Assistant Professor	Zoology	21	1	Nil
	Dr. K. M. Pariya	M. Sc. Ph. D.	Associate Professor	Animal Physiology	17	Nil	Nil
	Mr. Abhay Morajkar	M. Sc.	Assistant Professor	Animal Physiology	2	Nil	Nil
	Ms. Pratipada Lohare	M.Sc.	Assistant Professor	Zoology (EVS)	1	Nil	Nil
11.	List of senior visiting faculty				Nil		
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.				Approximately 20 % of Department work.		



13.	Student -Teacher Ratio (programme wise)	FY- 205 : 9, SY- 72 : 9, TY – 32 : 9																																				
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled Administrative staff – 02 (Lab Assistant) and Support staff – 06																																					
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph.D: 07 PG : 02																																					
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : Nil																																					
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Sr. No	Name of investigator	Title of project	Funding Agency & year	Amount in Rs.	
1.	Dr. (Mrs.) M. K. Pejaver	Study of diversity of Scarabaeid beetles in Pune city and effect of some ecological parameters on the life history of <i>Protaetia aurichalcea</i> ”	University Grant Commission	10,50,000 /-	
2.	Dr. (Mrs.) P. N. Kurve	“To study season dependent variation in biodiversity and pollution status on the basis of indicator taxa of inter-tidal zones along the coastline of Alibaug, District: Raigad, Maharashtra”	University Grant Commission	11,87,800 /-	
18.	Research Centre /facility recognized by the University		Recognized research centre for M.Sc. and Ph.D by University of Mumbai, YCMOU. Shri J. J. Tibrewala University, Rajasthan.		
19.	Publications: Number of publications From Jan 2010- Nov.2014				
Sr. No.	Name of the faculty	International Journal	Proceeding/ College Journal	Proceeding / College Journal	Seminar / Conferences Attended
1.	Dr. (Mrs.) M. K. Pejaver	22	15	15	60
2.	Dr. (Mrs.) N. N. Patil	3	1	1	15
3.	Dr. R. P. Athalye	12	6	6	19
4.	Prof. S. D. Rathod	2	Nil	Nil	9
5.	Dr. (Mrs.) V. D. Manjramkar	Nil	2	2	23
6.	Dr.(Mrs.) P.N. Kurve	4	7	7	28
7.	Dr K. M. Pariya	1	Nil	Nil	32
8.	Mr Abhay Morajkar	Nil	Nil	Nil	4



20.	Areas of consultancy and income generated.:																								
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21.	Faculty as members in a. International Committees : Nil b. National committees : Dr. (Mrs.) M. K. Pejaver, NAAC Peer team, NAAC restructuring core committee c. Editorial Boards : Dr. R. P. Athalye, Editorial committee member of Yoga Prasad, by Shri Ambika Yog Kutir, Thane and Journal Bionanofrontier.																								
22.	Student projects a) Percentage of students who have done in-house projects including inter departmental / programme: 10 % of total Zoology students. b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil																								

23.	<p>Awards/ Recognitions received by faculty and students:</p> <p>Faculty:</p> <p>❖ Dr. (Mrs.) M. K. Pejaver:</p> <p>➤ Awards:</p> <ul style="list-style-type: none">▪ Received Certificate of Honour given by PWD, Thane on the Occasion of International Women Day on March 08, 2010▪ Honored with 'Paryavaran Mitra Puraskar' by The Thane Janata Sahakari Bank, Ltd., Thane, for excellent work in the field of environment protection and conservation on June 5, 2010.▪ Honored as "Bal Sahitya Mitra" by Nyayik Ladha Patrakar Seva Sanstha on 8th January 2011.▪ Honored as "Paryavran Puraskar" by Bharatmata Bahuuddeshiya Sanstha, Naldurg on 26th September 2011.▪ Honored with "Pitambari Thane Nagara Ratna Puraskar" by Nagar Vikas Manch on 16th February 2014. <p>➤ Recognition:</p> <ul style="list-style-type: none">▪ Elected as Dean of Faculty of Science, University of Mumbai, 2011. <p>❖ Dr. R. P. Athalye:</p> <p>➤ Awards:</p> <ul style="list-style-type: none">▪ "Yoga Prashikshan Sewa Puraskar" by Shri Ambika Yoga Kutir, Thane, on August 15, 2013. <p>➤ Recognition:</p> <ul style="list-style-type: none">▪ Recognition as Ph.D Guide, Supervisor, visiting faculty in subject Zoology - Shri J.J. Tibrewala, University, Rajasthan on April 19, 2010.▪ Recognized as Ph.D. Guide for subject Environmental Science, Mumbai of University w. e .f. September 17, 2013. Letter PG/2/ICD/2013-14/1059 dated 25 Oct. 2013. <p>❖ Dr. (Mrs.) V. D. Manjramkar:</p> <p>➤ Awards:</p> <ul style="list-style-type: none">▪ Received Samaj Bhusan Puraskar from NGO Nyaeek Ladha for Social Work on October 25, 2010. <p>❖ Dr. (Mrs.) P. N. Kurve:</p> <p>➤ Recognition:</p> <ul style="list-style-type: none">▪ Received recognition for Ph.D. in Zoology from University of Mumbai vide letter no. PG/2/ICD/2012-13/2910 dated 18th January 2013.
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24.	List of eminent academicians and scientists/ visitors to the department					
	Sr. No	Name of the person	Designation	Purpose of the visit		
	1.	Dr. Sanjay Joshi	Sr. Biology Teacher	Solid- Waste Management. 18 th August 2010.		
	2.	Dr. Amol Patwardhan	Asst. Professor K. J. Somaiya College of Science , Vidyavihar.	Inauguration of Nature club Photography club on 23 /7 2011 and Lecture in preparatory workshop on 27 th July 2013		
	3.	Mr. Vaibhav Desai (BE Computer)	A programme analyst in Godrej.	Talk on Environmental Awareness –Nature club, Zoology on December16, 2010		
	4.	Mr.Vishal J Bhave:	Scientist-B BNHS	Lecture in preparatory workshop on 27 th July 2013		
	5.	Mr. Ramsanjiwan	Forensic Sc. officer Govt. of India Delhi	Guidance on subject Forensic science And Importance of Competitive exams On 20 th Aug 2014		
25.	Seminars/ Conferences/Workshops organized & the source of funding					
	a) International		: Nil			
	b) National		: 01			
	Sr. No	Title	Source of funding	Funds received		
	1.	Biodiversity: Status and Challenges in conservation FAVEO 2013	SACON and WWF, India	100 % expenses were done by VPM & Awaiting for UGC and MOEF Grant.		
26.	Student profile programme/course wise: T.Y.B.Sc.					
	Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
				M*	F*	
	2013-14	26	26	5	21	96 %
	2012-13	21	21	7	14	80.96 %
	2011-12	19	19	7	12	100 %
	2010-11	9	9	2	7	88.88 %
	* M = Male F = Female					



27.	Diversity of Students year: T.Y.B.Sc.		
	Name of the Course / year	% of students from the same state	% of students from other States
	2013-14	100	0
	2012-13	100	0
	2011-12	100	0
	2010-11	100	0
	2009-10	100	0
28.	How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil		
29.	Student progression		
	Student progression	Against % enrolled	
	UG to PG	15%	
	PG to M. Phil.	N.A	
	PG to Ph.D.	N.A	
	Ph.D. to Post-Doctoral	N.A	
	Employed • Campus selection • Other than campus recruitment	Nil 50%	
	Entrepreneurship/Self-employment	N.A	
30.	Details of Infrastructural facilities		
a)	Library	Books are available in the central library and Department also maintains separate library with 340 reference books which are donated by students and staff.	
b)	Internet facilities for Staff & Students	04 computers with internet facility are available in the department for staff and students.	
c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.	
d)	Laboratories	Two spacious laboratories shared by Junior college and degree college, also a spacious research laboratory and a dark room.	



31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V</p> <p>Table: Z31 No. of T.Y. B.Sc. students getting financial assistance:</p> <table border="1"><thead><tr><th>Year</th><th>Govt. Scholarship</th><th>Govt. Freeships</th><th>Any other financial aid</th><th>Total no. of students</th></tr></thead><tbody><tr><td>2013 – 14</td><td>6</td><td>5</td><td>Nil</td><td>11</td></tr><tr><td>2012 – 13</td><td>3</td><td>5</td><td>Nil</td><td>8</td></tr><tr><td>2011 – 12</td><td>1</td><td>3</td><td>Nil</td><td>4</td></tr><tr><td>2010 – 11</td><td>1</td><td>3</td><td>Nil</td><td>4</td></tr></tbody></table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2013 – 14	6	5	Nil	11	2012 – 13	3	5	Nil	8	2011 – 12	1	3	Nil	4	2010 – 11	1	3	Nil	4
Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students																						
2013 – 14	6	5	Nil	11																						
2012 – 13	3	5	Nil	8																						
2011 – 12	1	3	Nil	4																						
2010 – 11	1	3	Nil	4																						
32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <ol style="list-style-type: none">1. Two Workshops before conference for students before every conference.2. Two days workshop on preparation of fish products like prawn/ fish pickle, fish burger and fish fingers.3. Certificate course in Bioinformatics																									
33.	<p>Teaching methods adopted to improve student learning</p> <ul style="list-style-type: none">• All staff members are effectively using LAPTOPS and LCD for Teaching, Theory and Practicals.• Staff members arrange remedial lectures for academically poor students and special guidance lectures for brilliant students in our subject.• Staff encourages the students to participate in major and minor research projects.																									
34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <ol style="list-style-type: none">i. Dr. R. P. Athalye regularly conducts Yoga training courses for student and staff for improvement in physical and mental healthii. Department regularly arranges excursions and field visits for Undergraduate students where all students and staff participate.																									
35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ul style="list-style-type: none">▪ Good research facilities. Most of the staff is Ph. D.▪ Good interaction between students and teachers.▪ Good Parent teacher interaction.▪ Department arranges revision practicals, preliminary examinations and question sessions.▪ The staff members upload notes, question papers on the Digitory Repository which is available on our website.▪ Encouragement and Guidance is given for student research projects.																									



- All staff members are effectively using LAPTOPS and LCD for theory and practicals.
- Staff members arrange remedial lectures for academically poor students and special guidance Lectures for brilliant students in subject.
- Department run a Novel system of maintaining chemicals required for practicals
- Department have an efficient non-teaching staff who have excellently maintained the museum specimens and chemical shelves.

Weakness:

- Needs improvement in looking after weak students.
- Less attention is given to bridge courses.
- Proper data of past students is not maintained
- Data of students doing post graduation is not available.
- Data of employment offered after graduation is not maintained
- Arrangement for job oriented/ skill oriented courses are neglected

Opportunities:

- More research project can be taken.
- Student's participation in research projects will be encouraged.

Challenges:

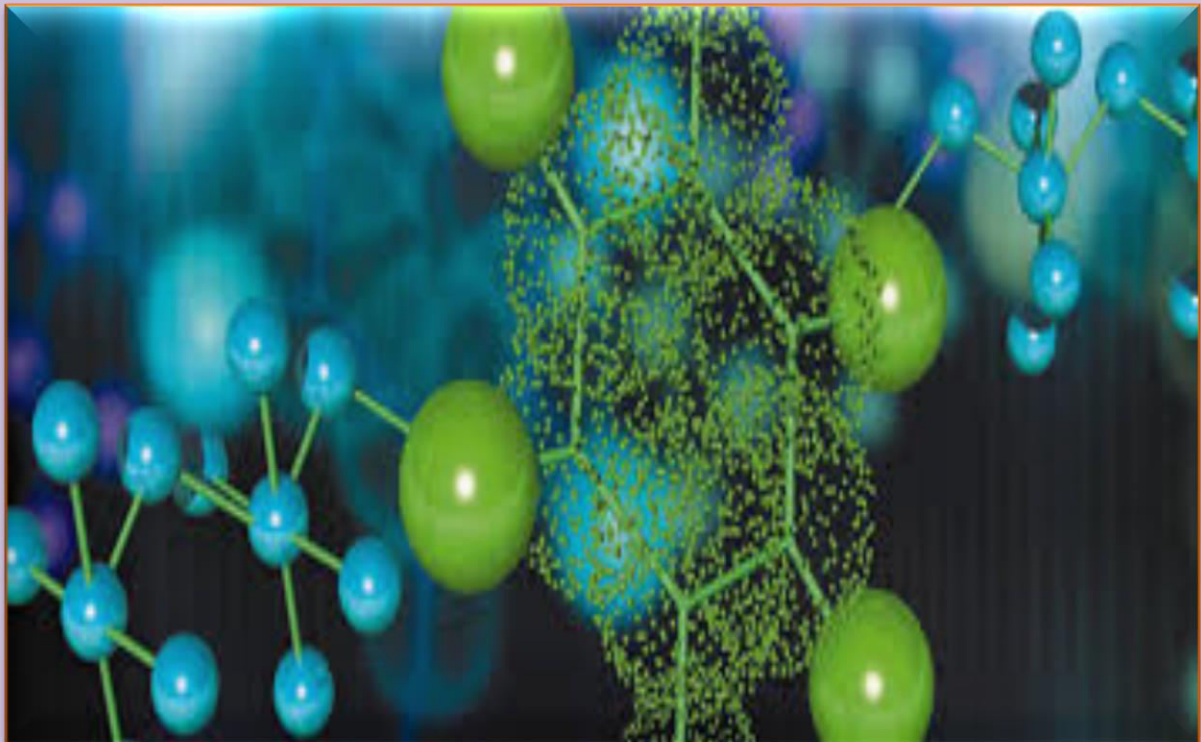
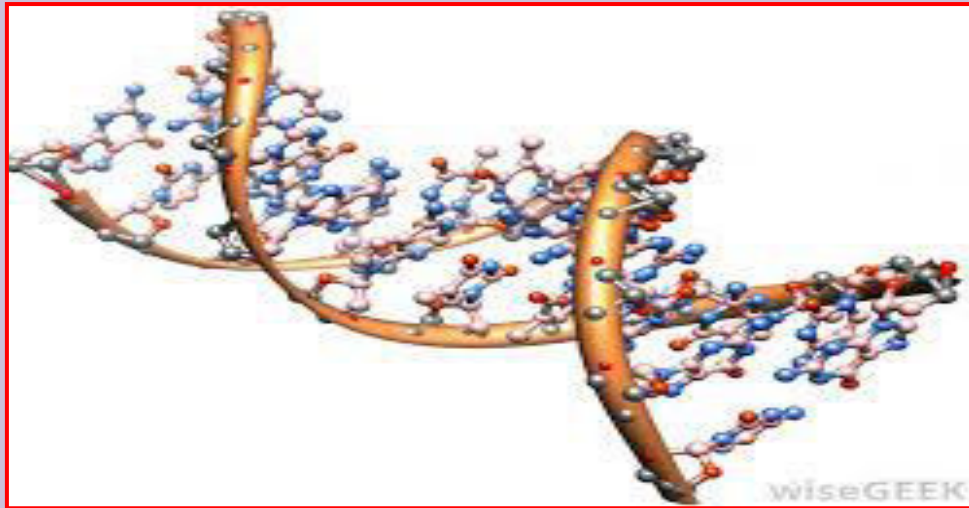
- Interdisciplinary activities to be increased.
- Improvement of past students data.
- More Parents meeting to solve student problems should be arranged to make them better and responsible citizens.

Future Plans:

- More bridge courses (lectures) will be arranged for the newly enrolled students to fill up the gap between the previous year's syllabus / topics in the subjects and new syllabus.
- Weak students will be detected from previous year's academic performance and extra lectures will be arranged for such academically weak students.
- Efforts will be taken to submit the plans for UGC major/and minor research projects.
- More minor research projects plans will be submitted to Mumbai University.
- Efforts will be taken to involve more students in the minor / student's research projects.
- Skill oriented certificate sources will be arranged by the department.
- To make teaching interesting for the students, use of ICT will be increased.
- Updating of departmental library will be given priority.



Department of Biochemistry





Department of Biochemistry

Biochemistry

1.	Name of the department	BIOCHEMISTRY													
2.	Year of Establishment	2012													
3.	Names of Programmes / Courses offered	B.Sc.- Biochemistry													
4.	Names of Interdisciplinary courses and the departments/units involved	Nil													
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.													
6.	Participation of the department in the courses offered by other departments	Nil													
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil													
8.	Details of courses/programmes discontinued (if any) with reasons: Nil														
9.	Number of Teaching posts: <table border="1" style="margin-left: 20px; width: 80%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 40%;">Filled</th> </tr> </thead> <tbody> <tr> <td>Professors</td> <td>-</td> </tr> <tr> <td>Associate Professors</td> <td>-</td> </tr> <tr> <td>Asst. Professors</td> <td>4*</td> </tr> <tr> <td>Total</td> <td>4</td> </tr> </tbody> </table> <p style="margin-left: 20px; color: blue;">* As these departments are Unaided, all the teaching posts are filled by management depending upon the workload.</p>						Filled	Professors	-	Associate Professors	-	Asst. Professors	4*	Total	4
	Filled														
Professors	-														
Associate Professors	-														
Asst. Professors	4*														
Total	4														
10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)														
	Name	Qualification	Designation	No. of Years of Experience	Specialization										
	Number of workshops/seminars / conferences attended since 2010														
	Dr.(Mrs.) A. S. Goswami-Giri *	M.Sc., Ph.D. FISST, PGD Admin & Sup	Co-ordinator (Biochemistry)	19 yrs	Biochemistry										
	Miss. Monali. D. Katkar	MSc. B.Ed.	Assistant Professor	2 yrs	Biochemistry										
					2										



	Miss. Ankita Dharma	MSc.	Assistant Professor	-	Biochemistry	1
	Miss. Vaibhavi Gujar	MSc.	Assistant Professor	-	Biochemistry	1
* Staff from Department of Chemistry.						
11.	List of senior visiting faculty			Nil		
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.			100 %		
13.	Student -Teacher Ratio (programme wise)			25:4		
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled : Technical and administrative staff of Chemistry Department looks after Biochemistry.					
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph. D : 01 PG : 03					
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : Nil					
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil					
18.	Research Centre /facility recognized by the University			Nil		
19.	Publications: Number of publications From Jan 2010- Nov.2014					
	Sr. No.	Name of the faculty	International Journal	National Journal	Proceedings/ College Journal	
	1.	Miss. Monali. D. Katkar	-	-	1	
	2.	Miss. Ankita Dharma	-	-	-	
	3.	Miss. Vaibhavi Gujar	-	-	1	
20.	Areas of consultancy and income generated: Nil					
21.	Faculty as members in a. International Committees : Nil b. National committees : Nil c. Editorial Boards : Nil					



22.	<p>Student projects</p> <p>a) Percentage of students who have done in-house projects including inter departmental / programme: F.Y : Nil, S.Y : 100%, T.Y : 100 %</p> <p>b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil</p>														
23.	Awards/ Recognitions received by faculty and students : Nil														
24.	<p>List of eminent academicians and scientists/ visitors to the department</p> <table border="1" data-bbox="261 604 1456 814"> <thead> <tr> <th data-bbox="261 604 380 709">Sr. No</th> <th data-bbox="380 604 716 709">Name of the person</th> <th data-bbox="716 604 1179 709">Designation</th> <th data-bbox="1179 604 1456 709">Purpose of the visit</th> </tr> </thead> <tbody> <tr> <td data-bbox="261 709 380 814">1.</td> <td data-bbox="380 709 716 814">Dr. Nupoor Mehrotra</td> <td data-bbox="716 709 1179 814">Co – ordinator</td> <td data-bbox="1179 709 1456 814">Inauguration of Biochemistry</td> </tr> </tbody> </table>	Sr. No	Name of the person	Designation	Purpose of the visit	1.	Dr. Nupoor Mehrotra	Co – ordinator	Inauguration of Biochemistry						
Sr. No	Name of the person	Designation	Purpose of the visit												
1.	Dr. Nupoor Mehrotra	Co – ordinator	Inauguration of Biochemistry												
25.	<p>Seminars/ Conferences/Workshops organized & the source of funding</p> <p>a) International : Nil</p> <p>b) National : Nil</p> <p>c) State level : Nil</p>														
26.	<p>Student profile programme/course wise: T.Y.B.Sc.</p> <table border="1" data-bbox="321 1041 1398 1272"> <thead> <tr> <th data-bbox="321 1041 621 1167" rowspan="2">Name of the Course/programme</th> <th data-bbox="621 1041 829 1167" rowspan="2">Applications received</th> <th data-bbox="829 1041 1003 1167" rowspan="2">Selected</th> <th colspan="2" data-bbox="1003 1041 1211 1104">Enrolled</th> <th data-bbox="1211 1041 1398 1167" rowspan="2">Pass percentage</th> </tr> <tr> <th data-bbox="1003 1104 1122 1167">M*</th> <th data-bbox="1122 1104 1211 1167">F*</th> </tr> </thead> <tbody> <tr> <td data-bbox="321 1167 621 1272">2014-15 #</td> <td data-bbox="621 1167 829 1272">3</td> <td data-bbox="829 1167 1003 1272">3</td> <td data-bbox="1003 1167 1122 1272">0</td> <td data-bbox="1122 1167 1211 1272">3</td> <td data-bbox="1211 1167 1398 1272">N.A</td> </tr> </tbody> </table> <p>* M = Male F = Female # First batch of T.Y.BSc.</p>	Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage	M*	F*	2014-15 #	3	3	0	3	N.A
Name of the Course/programme	Applications received				Selected	Enrolled		Pass percentage							
		M*	F*												
2014-15 #	3	3	0	3	N.A										
27.	<p>Diversity of Students year: T.Y.B.Sc.</p> <table border="1" data-bbox="293 1430 1425 1671"> <thead> <tr> <th data-bbox="293 1430 607 1556">Name of the Course / year</th> <th data-bbox="607 1430 920 1556">% of students from the same state</th> <th data-bbox="920 1430 1203 1556">% of students from other States</th> <th data-bbox="1203 1430 1425 1556">% of students from abroad</th> </tr> </thead> <tbody> <tr> <td data-bbox="293 1556 607 1671">2014-15</td> <td data-bbox="607 1556 920 1671">100</td> <td data-bbox="920 1556 1203 1671">0</td> <td data-bbox="1203 1556 1425 1671">0</td> </tr> </tbody> </table>	Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad	2014-15	100	0	0						
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28.	<p>How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil</p>														



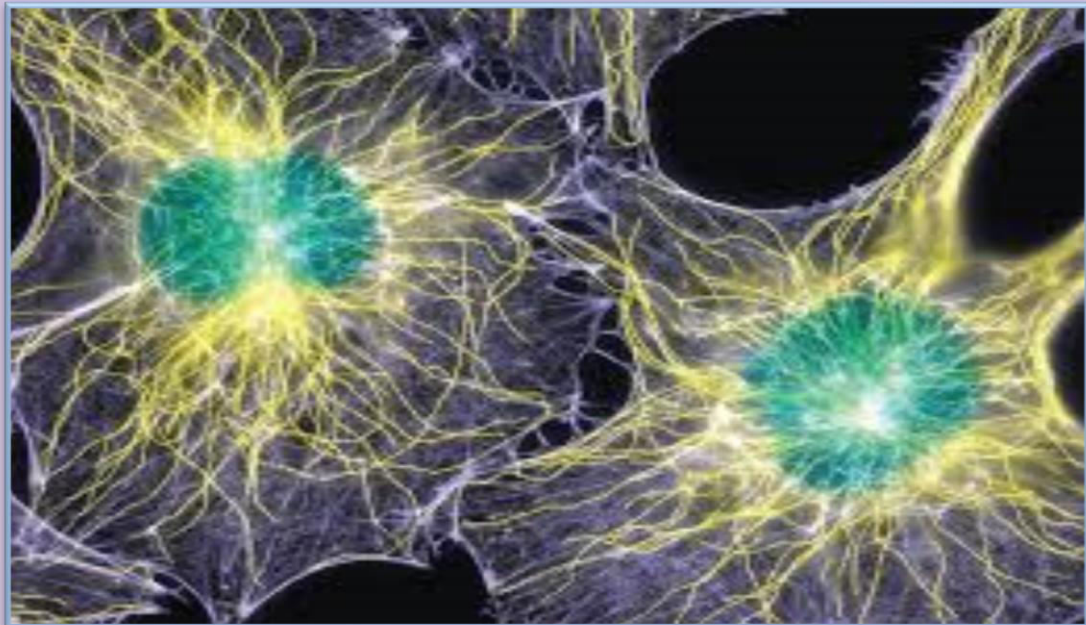
29.	<p>Student progression</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Student progression</th> <th style="width: 40%;">Against % enrolled</th> </tr> </thead> <tbody> <tr> <td>UG to PG</td> <td>N.A</td> </tr> <tr> <td>PG to M. Phil.</td> <td>N.A</td> </tr> <tr> <td>PG to Ph.D.</td> <td>N.A</td> </tr> <tr> <td>Ph.D. to Post-Doctoral</td> <td>N.A</td> </tr> <tr> <td>Employed</td> <td></td> </tr> <tr> <td> <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment </td> <td> <p>N.A</p> <p>N.A</p> </td> </tr> </tbody> </table>	Student progression	Against % enrolled	UG to PG	N.A	PG to M. Phil.	N.A	PG to Ph.D.	N.A	Ph.D. to Post-Doctoral	N.A	Employed		<ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	<p>N.A</p> <p>N.A</p>
Student progression	Against % enrolled														
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PG to Ph.D.	N.A														
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Employed															
<ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	<p>N.A</p> <p>N.A</p>														
30.	<p>Details of Infrastructural facilities</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 5%;">a)</td> <td style="width: 45%;">Library</td> <td style="width: 50%;">Books are available in the central library.</td> </tr> <tr> <td>b)</td> <td>Internet facilities for Staff & Students</td> <td>Available</td> </tr> <tr> <td>c)</td> <td>Class rooms with ICT facility</td> <td>Available</td> </tr> <tr> <td>d)</td> <td>Laboratories</td> <td>M.Sc. chemistry lab is used for practical purpose</td> </tr> </tbody> </table>	a)	Library	Books are available in the central library.	b)	Internet facilities for Staff & Students	Available	c)	Class rooms with ICT facility	Available	d)	Laboratories	M.Sc. chemistry lab is used for practical purpose		
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d)	Laboratories	M.Sc. chemistry lab is used for practical purpose													
31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V</p> <p>Table: M31 No. of T.Y. B.Sc. students getting financial assistance:</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Year</th> <th style="width: 20%;">Govt. Scholarship</th> <th style="width: 20%;">Govt. Freeships</th> <th style="width: 20%;">Any other financial aid</th> <th style="width: 25%;">Total no. of students</th> </tr> </thead> <tbody> <tr> <td>2014 – 15</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2014 – 15								
Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students											
2014 – 15															
32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <p>Expert lecture by Dr. Nupur Mehrotra was arranged for students on Biochemistry club inauguration "Jeevika".</p>														



33.	<p>Teaching methods adopted to improve student learning</p> <p>Teaching methods :-</p> <ul style="list-style-type: none">▪ ICT enabled teaching.▪ Chalk and Talk.▪ Group Discussion.▪ Class tests
34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <p>All the teaching staff members are actively involved in various committees like NSS, Research, Attendance, Cultural, Gymkhana etc.</p>
35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ul style="list-style-type: none">✓ Dedicated staff. <p>Weakness:</p> <ul style="list-style-type: none">✓ Bridge course /value added courses.✓ Since, the department is new it will take time for establishment. <p>Opportunities:</p> <ul style="list-style-type: none">✓ Research opportunities✓ Improvement in the laboratory facilities.✓ To arrange departmental activities. <p>Challenges:</p> <ul style="list-style-type: none">✓ To make independent Biochemistry department.✓ To upgrade quality and quantity of students.✓ To upgrade Research Activity. <p>Future Plans:</p> <ol style="list-style-type: none">1) To conduct a workshop for improving practical skills and subject knowledge.2) To conduct a Guest lectures, to interact with eminent personalities and to update the knowledge of chemistry through research and motivate students become rational thinkers3) To carry out project for augmentation of ingenious thinking and enhance potential in the subject.



Department of Biotechnology / Microbiology





Department of Biotechnology and Microbiology

1.	Name of the department	BIOTECHNOLOGY & MICROBIOLOGY				
2.	Year of Establishment	2007				
3.	Names of Programmes / Courses offered	B.Sc.- Biotechnology B.Sc.- Microbiology				
4.	Names of Interdisciplinary courses and the departments/units involved	Nil				
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.				
6.	Participation of the department in the courses offered by other departments	Refresher course for the teacher organized by Department of Zoology				
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	Nil				
8.	Details of courses/programmes discontinued (if any) with reasons: Nil					
9.	Number of Teaching posts:					
		Filled				
	Professors	-				
	Associate Professors	-				
	Asst. Professors	8*				
	Total	8				
* As these departments are Unaided, all the teaching posts are filled by management depending upon the workload. 1 teacher is on Part Time basis and 1 teacher on the basis of clock hour.						
10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)					
	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
	Dr. Kalpita Mulye	Ph. D.	Coordinator Microbiology	Microbiology	5 yrs	11
	Ms. Jayashree Pawar	M. Sc. , NET	Coordinator Biotechnology	Biotechnology	11 yrs	12



	Dr. Ketan Thatte	Ph. D.	Assistant prof.	Biotechnology	5 yrs		13
	Ms. Rutuja Gaikwad	M. Sc. NET	Assistant prof.	Biotechnology	3yrs		5
	Ms. Vanita Gadagkar	M. Sc.	Assistant prof.	Biotechnology	2 yrs		Nil
	Ms. Sayali Patil	M. Sc.	Assistant prof.	Microbiology	4 yrs		Nil
	Ms. Zahera Momin	M. Sc.	Assistant prof.	Microbiology	1 yr		Nil
	Ms. Madhuri Vaishampayan	M. Sc.	Assistant prof.	Biotechnology	1 yr		Nil
11.	List of senior visiting faculty			N.A.			
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.			Since it is Unaided course only two members are on permanent basis and remaining staff members get the continuation on the basis of their performance.			
13.	Student -Teacher Ratio (programme wise)			Biotech: FY- 56:4, SY- 52:5, TY- 44:6 Micro : FY- 32:4, SY- 22:3, TY - 28:6			
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled Administrative Staff- 1, Supportive staff – 4						
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph.D: 02 PG : 06						
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil						
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil						
18.	Research Centre /facility recognized by the University			N.A.			
19.	Publications: Number of publications From Jan 2010- Nov.2014						
	Sr. No.	Name of the faculty	International Journal	National Journal	Proceedings/ College Journal		
	1.	Dr. Kalpita Mulye	Nil	Nil	Nil		
	2.	Ms. Jayashree Pawar	1	Nil	Nil		
	3.	Dr. Ketan Thatte	2	1	07		
	4.	Ms. Rutuja Gaikwad	Nil	Nil	Nil		



	5.	Ms. Sayali Patil	Nil	Nil	Nil
	6.	Ms. Zahera Momin	1	Nil	Nil
20.	Areas of consultancy and income generated.				
	Sr. No.	Year	Agency	Amount generated in Rs.	
	1.	2014 – 2015	Babasaheb Ambedkar Technical University, Lonere, Raigad	16,000 /-	
	2.	2013 – 2014		6,000 /-	
	3.	2012 – 2013		10,000 /-	
21.	Faculty as members in				
	a.	International Committees	: Nil		
	b.	National committees	: Nil		
	c.	Editorial Boards	: Nil		
22.	Student projects				
	a)	Percentage of students who have done in-house projects including inter departmental / programme: 10 %			
	b)	Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: 0.5 %			
23.	Awards/ Recognitions received by faculty and students				
	Students:				
	Rank holders in the University for last four years.				
	1) Two students cleared JNU Examination with one getting 18th rank at all India level.				
	2) Mr. Aniket Bagul of S.Y.B.Sc Biotechnology was selected as Area coordinator for international Zuch dance flash mob.				
	Faculty: Nil				

24. List of eminent academicians and scientists/ visitors to the department

Sr. No	Name of the person	Designation	Purpose of the visit
1.	Dr. B. B. Chattoo	Founder Vice chancellor, Shri Mata Vaishno Devi University Jammu.	Resource person at the conference
2.	Dr. Ajit Datar	Advisor, Shimadzu Corporation Pvt. Ltd.	Resource person at the conference
3.	Dr. Supriya Bhalerao	Senior Reaserch officer, Nair Hospital	Resource person at the conference
4.	Dr. Bhakti Pathak	Scientist C, Structural Biology, NIRRH	Resource person at the conference
5.	Dr. Rekha Bhagwat	Associate professor, D. Y. Patil Medical College, Navi Mumbai	Resource person at the conference
6.	Dr. Suruchi Jamkhedkar	Genetic Counselor	Resource person at the conference
7.	Dr. Ashes Ganguli	Director, Cryogen Instruments India Pvt. Ltd.	Resource person at the conference
8.	Dr. Anu Ghosh	Scientific Officer H , BARC	Resource person at the conference
9.	Dr. K. P. Mishra Vice	chancellor Nehru Gram Bharati University, Allahabad	Resource person at the conference
10.	Dr. S. V. Chiplunkar	Head, Immunology, PI, ACTREC	Resource person at the conference
11.	Dr. Vandana Singh	Faculty department of biochemistry.	Resource person at the conference
12.	Mr. Ram Gulwady	Founder SANMOUR Pharma Pvt. Ltd.	Inauguration of biotech micro. club
13.	Dr. Disha Mody	Ph.D.	Guest lecture on Gene therapy of X linked SCID
14.	Dr. M. A. Deodhar	Ph. D. DHE	Guest lecture on career opportunities in research and plant tissue culture
15.	Mrs. Supriya Sawant	M. Sc. NET	Career opportunities in microbiology and biotechnology
16.	Dr. Mayur Tamhane,	Former Assistant Prof, Yeditepe university, faculty of Engineering and Architecture, Istanbul, turkey	Guest lecture on Strategies for HIV eradication”
17.	Mr. Ramprasad	Founder, unique biosolutions	Guest lecture



18.	Dr. Disha Mody	former Research Associate, St. Jude Children's Research Hospital, Memphis, Tennessee, USA	Resource person
19.	Dr. Abhishek Mule	Research Scientist, ICT.	Resource person
20.	Dr. R. C. Patil	Prof, Department of Microbiology, Bhavan's College, Mumbai.	Resource person
21.	Dr. Prashant Khadke	Product Manager (Asia Pacific), Biorad Laboratories.	Resource person
22.	Ms. Shirish Gole		Lecture on preparation of competitive examination.
23.	Mr. Jayesh Kedare		Lecture on preparation of competitive examination.
24.	Ms. Shweta Karambelkar	SRF, IISc Bangalore	Lecture on Career opportunities in academic research, competitive examination guidance
25.	Mrs. Gouri Rane	Senior cell culture Analyst	Lecture on Career opportunities in industrial research
26.	Ms. Rajashree Kadam	JRF, ACTREC	Lecture on preparation for competitive examinations
25.	Seminars/ Conferences/Workshops organized & the source of funding a) International : Nil b) National : Conference on Biotechnological diagnosis, January 2012 c) Seminar : Unveiling life beyond DNA discovery. d) Workshop : 03 <ul style="list-style-type: none"> • Two pre-conference workshops • Workshop on Basic microbiological techniques • Workshop on data analysis and data representation for amateur biotechnologists and microbiologists. 		



26. Student profile programme/course wise: T.Y.B.Sc. Biotechnology

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	32	32	3	29	87
2012-13	22	22	8	14	96
2011-12	25	25	5	20	77
2010-11	22	22	6	16	86

* M = Male F = Female

Student profile programme/course wise: T.Y.B.Sc. Microbiology

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	10	10	10	0	60
2012-13	21	21	5	16	69
2011-12	13	13	3	10	61
2010-11	13	13	5	8	39

* M = Male F = Female

27. Diversity of Students year: T.Y.B.Sc. Biotechnology

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	97	0	0
2012-13	94	0	0
2011-12	92	0	0
2010-11	100	0	0

Diversity of Students year: T.Y.B.Sc. Microbiology

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	90	0	0
2012-13	95	0	0
2011-12	100	0	0
2010-11	100	0	0



28.	<p>How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?</p> <p>Two students cleared JNU Examination with one getting 18th rank at all India level.</p>																									
29.	<p>Student progression</p> <table border="1" data-bbox="337 436 1382 821"> <thead> <tr> <th data-bbox="342 443 915 495">Student progression</th> <th data-bbox="922 443 1377 495">Against % enrolled</th> </tr> </thead> <tbody> <tr> <td data-bbox="342 499 915 548">UG to PG</td> <td data-bbox="922 499 1377 548">N.A</td> </tr> <tr> <td data-bbox="342 552 915 600">PG to M. Phil.</td> <td data-bbox="922 552 1377 600">N.A</td> </tr> <tr> <td data-bbox="342 604 915 653">PG to Ph.D.</td> <td data-bbox="922 604 1377 653">N.A</td> </tr> <tr> <td data-bbox="342 657 915 705">Ph.D. to Post-Doctoral</td> <td data-bbox="922 657 1377 705">N.A</td> </tr> <tr> <td data-bbox="342 709 915 821"> Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment </td> <td data-bbox="922 709 1377 821"> N.A N.A </td> </tr> </tbody> </table>	Student progression	Against % enrolled	UG to PG	N.A	PG to M. Phil.	N.A	PG to Ph.D.	N.A	Ph.D. to Post-Doctoral	N.A	Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	N.A N.A													
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Ph.D. to Post-Doctoral	N.A																									
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	N.A N.A																									
30.	<p>Details of Infrastructural facilities</p> <table border="1" data-bbox="261 894 1442 1325"> <tbody> <tr> <td data-bbox="266 900 326 1079">a)</td> <td data-bbox="332 900 651 1079">Library</td> <td data-bbox="657 900 1437 1079">Books are available in the central library and department also maintains separate library with 250 Biotechnology and 20 Microbiology reference books with 94 Biotechnology and 4 Microbiology journals for students and staff..</td> </tr> <tr> <td data-bbox="266 1083 326 1167">b)</td> <td data-bbox="332 1083 651 1167">Internet facilities for Staff & Students</td> <td data-bbox="657 1083 1437 1167">15 computers with Internet facility are available to the student free of cost in the department</td> </tr> <tr> <td data-bbox="266 1171 326 1255">c)</td> <td data-bbox="332 1171 651 1255">Class rooms with ICT facility</td> <td data-bbox="657 1171 1437 1255">Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.</td> </tr> <tr> <td data-bbox="266 1260 326 1325">d)</td> <td data-bbox="332 1260 651 1325">Laboratories</td> <td data-bbox="657 1260 1437 1325">Two laboratories.</td> </tr> </tbody> </table>	a)	Library	Books are available in the central library and department also maintains separate library with 250 Biotechnology and 20 Microbiology reference books with 94 Biotechnology and 4 Microbiology journals for students and staff..	b)	Internet facilities for Staff & Students	15 computers with Internet facility are available to the student free of cost in the department	c)	Class rooms with ICT facility	Available as department is provided with LCD and Laptop. The LCD is used as and when needed in the classroom.	d)	Laboratories	Two laboratories.													
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d)	Laboratories	Two laboratories.																								
31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V</p> <p>Table: BM31 (1)No. of T.Y. B.Sc.Biotechnology students getting financial assistance:</p> <table border="1" data-bbox="261 1602 1455 1873"> <thead> <tr> <th data-bbox="266 1608 456 1686">Year</th> <th data-bbox="462 1608 743 1686">Govt. Scholarship</th> <th data-bbox="750 1608 1000 1686">Govt. Freeships</th> <th data-bbox="1006 1608 1235 1686">Any other financial aid</th> <th data-bbox="1242 1608 1450 1686">Total no. of students</th> </tr> </thead> <tbody> <tr> <td data-bbox="266 1690 456 1738">2013 – 14</td> <td data-bbox="462 1690 743 1738">1</td> <td data-bbox="750 1690 1000 1738">3</td> <td data-bbox="1006 1690 1235 1738">NIL</td> <td data-bbox="1242 1690 1450 1738">4</td> </tr> <tr> <td data-bbox="266 1743 456 1791">2012 – 13</td> <td data-bbox="462 1743 743 1791">-</td> <td data-bbox="750 1743 1000 1791">2</td> <td data-bbox="1006 1743 1235 1791">NIL</td> <td data-bbox="1242 1743 1450 1791">2</td> </tr> <tr> <td data-bbox="266 1795 456 1843">2011 – 12</td> <td data-bbox="462 1795 743 1843">3</td> <td data-bbox="750 1795 1000 1843">6</td> <td data-bbox="1006 1795 1235 1843">NIL</td> <td data-bbox="1242 1795 1450 1843">9</td> </tr> <tr> <td data-bbox="266 1848 456 1896">2010 – 11</td> <td data-bbox="462 1848 743 1896">3</td> <td data-bbox="750 1848 1000 1896">6</td> <td data-bbox="1006 1848 1235 1896">NIL</td> <td data-bbox="1242 1848 1450 1896">9</td> </tr> </tbody> </table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2013 – 14	1	3	NIL	4	2012 – 13	-	2	NIL	2	2011 – 12	3	6	NIL	9	2010 – 11	3	6	NIL	9
Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students																						
2013 – 14	1	3	NIL	4																						
2012 – 13	-	2	NIL	2																						
2011 – 12	3	6	NIL	9																						
2010 – 11	3	6	NIL	9																						

Table: BM31(2) No. of T.Y. B.Sc.Microbiology students getting financial assistance:

Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students
2013 – 14	1	5	NIL	6
2012 – 13	-	1	NIL	1
2011 – 12	2	1	NIL	3
2010 – 11	1	2	NIL	3

32. Details on student enrichment programme (special lectures / workshops / seminar) with external experts.

2010: Guest lecture By Mr. Ram Gulwady, Founder Sanmour Pharma., Thane

2011: Pre-conference workshops: 2, guest lectures

2012:

- Conference on Biotechnology in Diagnostics
- Departmental fest KIOSK 12
- Journal and movie clubs

2013:

- Seminar on Unveiling life beyond DNA discovery
- Departmental fest KIOSK 13
- Lecture on 'Future Prospects in Microbiology and Biotechnology'
- Lecture by Alumni who cleared competitive exams
- Journal and movie clubs

2014:

- Workshop on basic microbiological techniques
- Workshop on Data representation and analysis
- Guest lectures on career guidance
- Departmental fest KIOSK 14
- Journal and movie clubs



33.	<p>Teaching methods adopted to improve student learning</p> <p>Teaching methods :-</p> <ul style="list-style-type: none">▪ Problem solving sessions,▪ Discussion.▪ Seminars.▪ Class tests.▪ ICT enabled teaching,
34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <ul style="list-style-type: none">✓ Laboratory facility was provided for the school children free of cost for undertaking scientific research project work under College school complex activity. Ms. Rutuja Gaikwad, Ms. Jayashree Pawar, Dr. Kalpita Mulye guided students.✓ Dr. Kalpita Mulye delivered a lecture on 'wonder worms ' in Rotary club of Thane suburban.
35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ul style="list-style-type: none">➤ Good infrastructure, personal attention.➤ Extra help given by all the staff members for weaker students➤ Rigorous presentation training through club activities➤ Motivational lectures by experienced personalities.➤ Organization of field visits. <p>Weakness:</p> <ul style="list-style-type: none">➤ Limited Departmental staff➤ Poor data maintenance of alumni➤ Limited remedial and bridge courses <p>Opportunities:</p> <ul style="list-style-type: none">➤ To improve data management➤ To conduct more bridge courses➤ To conduct more remedial lectures➤ To apply for research project funding <p>Challenges:</p> <ul style="list-style-type: none">➤ To involve all the students in research.➤ To have 100 % result.➤ To involve more faculty members and students in research activities➤ Try for major and minor projects <p>Future Plans:</p> <ul style="list-style-type: none">➤ To conduct workshop on Immunological techniques.➤ To conduct workshop on molecular biology techniques➤ To apply for research grants➤ To apply for research projects



Department of Environmental Science / Biodiversity & Wild Life Conservation and Management





Department of Environmental Science / Biodiversity, Wildlife Conservation and Management

E. V. S & BWCM

1.	Name of the department	ENVIROMENTAL SCIENCE / BIODIVERSITY, WILDLIFE CONSERVATION AND MANAGEMENT.										
2.	Year of Establishment	E.V.S - 2011 – 12 BWCM – 2013 – 14										
3.	Names of Programmes / Courses offered	M.Sc. - Environmental Science (By papers & By Research) Ph.D - Environmental Science M.Sc. - Biodiversity, Wildlife Conservation and Management (By papers)										
4.	Names of Interdisciplinary courses and the departments/units involved	Nil										
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.										
6.	Participation of the department in the courses offered by other departments	<ul style="list-style-type: none"> • Department of Human Sciences(UG) • Biodiversity, Wildlife Conservation and Management(PG) and Applied Component Environmental Science for T.Y.B.Sc (Biotechnology, Microbiology and Biochemistry) 										
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	The ongoing programme regarding Biodiversity Awareness in collaboration with HOPE nature trust.										
8.	Details of courses/programmes discontinued (if any) with reasons: Nil											
9.	Number of Teaching posts:	<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 40%;">Filled</th> </tr> </thead> <tbody> <tr> <td>Professors</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Associate Professors</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Asst. Professors</td> <td style="text-align: center;">6*</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">6</td> </tr> </tbody> </table>		Filled	Professors	-	Associate Professors	-	Asst. Professors	6*	Total	6
	Filled											
Professors	-											
Associate Professors	-											
Asst. Professors	6*											
Total	6											
<p>* As these departments are Unaided, all the teaching posts are filled by management depending upon the workload.</p>												



10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	No. of Years of Experience	Specialization	Number of workshops/ seminars / conferences attended since 2010
Dr. (Mrs.) P. N. Kurve*	M. Sc., Ph.D	Assistant Professor, Co-ordinator	20	Zoology	
Mr. A.S Joshi	M. Sc. (By Papers)	Assistant Professor	02	Biodiversity	6
Ms. G. I. Sayed	M. Sc. (By Papers)	Assistant Professor	01	Environmental Science	4
Mrs. S. A. Pachpande	M. Sc. (By Papers)	Assistant Professor	01	Botany	2
Mr. D. D. Shenai	M.Sc. (By Papers)	Assistant Professor (CHB)	2	Environmental Science	6
Mr. Chinmay Khanolkar	M.Sc. (By Papers)	Assistant Professor (CHB)	2	Environmental Science	NIL

* Staff from Department of Zoology.

Recognized Guide for M.Sc. by Research and Ph.D in subject of Environmental Science.

Name	Date of Recognition	
	M.Sc. By Research	Ph. D
Dr.(Mrs.) M. K. Pejaver *	-	18 th January 2013
Dr. R. P. Athalye *	-	17 th September 2013
Dr. (Mrs.) P. N. Kurve *	2 nd June 2014	14 th February 2014
Dr. Moses Kolet #	17 th September 2013	2 nd June 2014

* Staffs from Department of Zoology and # Staff from Department of Botany.

11. List of senior visiting faculty
6 Visiting Faculties.
Details in Annexure – I



12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.	90 %																																				
13.	Student -Teacher Ratio (programme wise)	M.Sc. I - 15:4, M.Sc. II – 18:4																																				
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled : 02																																					
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.: Ph. D : 01 PG : 05																																					
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : Nil																																					
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil																																					
18.	Research Centre /facility recognized by the University	Recognized research centre for M.Sc. and Ph.D by University of Mumbai.																																				
19.	Publications: Number of publications From Jan 2010- Nov.2014																																					
	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Name of the faculty</th> <th>International Journal</th> <th>National Journal</th> <th>Books</th> <th>Proceedings/ College Journal</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Dr. (Mrs.) P. N. Kurve</td> <td>2</td> <td>12</td> <td>1</td> <td>2</td> </tr> <tr> <td>2.</td> <td>Mr. A.S Joshi</td> <td>-</td> <td>-</td> <td>-</td> <td>1</td> </tr> <tr> <td>3.</td> <td>Ms. G. I. Sayed</td> <td>-</td> <td>-</td> <td>-</td> <td>1</td> </tr> <tr> <td>4.</td> <td>Mrs. S. A. Pachpande</td> <td>-</td> <td>-</td> <td>-</td> <td>1</td> </tr> <tr> <td>5.</td> <td>Mr. D. D. Shenai</td> <td>-</td> <td>-</td> <td>-</td> <td>4</td> </tr> </tbody> </table>		Sr. No.	Name of the faculty	International Journal	National Journal	Books	Proceedings/ College Journal	1.	Dr. (Mrs.) P. N. Kurve	2	12	1	2	2.	Mr. A.S Joshi	-	-	-	1	3.	Ms. G. I. Sayed	-	-	-	1	4.	Mrs. S. A. Pachpande	-	-	-	1	5.	Mr. D. D. Shenai	-	-	-	4
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1.	Dr. (Mrs.) P. N. Kurve	2	12	1	2																																	
2.	Mr. A.S Joshi	-	-	-	1																																	
3.	Ms. G. I. Sayed	-	-	-	1																																	
4.	Mrs. S. A. Pachpande	-	-	-	1																																	
5.	Mr. D. D. Shenai	-	-	-	4																																	
20.	Areas of consultancy and income generated: <ul style="list-style-type: none"> Analysis of Phytoplankton, Zooplankton and Benthos study for Paaus Organization (Mumbai based organization) Income generated: Rs. 25000 Estimation of Vehicular pollution for project of students from Bedekar Vidya Mandir School Income generated : Free of cost 																																					
21.	Faculty as members in <ul style="list-style-type: none"> a. International Committees : Nil b. National committees : Nil c. Editorial Boards : Nil 																																					



22.	<p>Student projects</p> <p>a) Percentage of students who have done in-house projects including inter departmental / programme: 98 %</p> <p>b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: 02 %</p>			
23.	<p>Awards/ Recognitions received by faculty and students :</p> <p>Students:</p> <p>➤ 2014-15: one project selected at University Level for Avishkar.</p>			
24.	<p>List of eminent academicians and scientists/ visitors to the department</p>			
	Sr. No	Name of the person	Designation	Purpose of the visit
1.	Dr. Amol Patwardhan	Asst. Professor K.J.Somaiya College of Science	Lecture in preparatory workshop on 27 th July 2013	
2.	Mr. Vishal. J. Bhawe	Scientist-B BNHS	Lecture in preparatory workshop on 27 th July 2013	
3.	Dr. Goldin Quadros	Scientist- SACON	Lecture for Biodiversity week celebration	
4.	Mr. Prem Sagar Mistry	Founder president: SEESCAPE	Lecture for Biodiversity week celebration	
5.	Ms. Lata Ghansamnani	Expert on Solid Waste Management	Lecture in workshop on Solid waste Management dated 10 th October 2014	
6.	Mr. Bhatu Sawant	Director and trustee of Samarth Bharat Vyaspith	Lecture in workshop on Solid waste Management dated 11 th October 2014	
7.	Mr. Surendra Dighe	Director and trustee of Jidnyasa trust	Lecture in workshop on Solid waste Management dated 11 th October 2014	
8.	Dr. Sanjay joshi	Asst. Professor K.J.Somaiya College of Science	Lecture in workshop on Solid waste Management dated 11 th October 2014	
9.	Dr. Kaberi Kar Gupta	Adjunct Professor, California state university, Fresno, U.S.A	Lecture for M.Sc. Part I and II Dated 3 rd November 2014.	



10.	Dr. Shashank Chitgopkar	Consultant in Trauma and Orthopaedics Having personal interest on Topic ' Parallels between Mythologies and modern sciences'	Lecture on 'Mythologies and modern sciences' and Modern sciences in Bhagwat Gita			
11.	Dr. Sasikumar Menon	Director at TDM Laboratory	In collaboration with HOPE delivered Lecture on 'Bird call'			
12	Dr Raju Kasambe	Ornithologists	In collaboration with HOPE delivered Lecture on 'Threatened Birds of Maharashtra'			
13	Mr Makarand Joshi	Vihang Travels	In collaboration with HOPE delivered Lecture on ' Biodiversity and Urban Area'			
14	Dr Deepak Apte	Chief Operating Officer, BNHS	In collaboration with HOPE delivered Lecture on 'Coastal Biodiversity'			
25.	Seminars/ Conferences/Workshops organized & the source of funding a) International : Nil b) National : National Conference on Biodiversity: Status and Challenges in Conservation FAVEO 2013 c) State level : Nil					
26.	Student profile programme/course wise: T.Y.B.Sc.					
	Name of the Course/programme	Applications received	Selected	Enrolled	Pass percentage	University %
				M*	F*	
	2013 – 14	35	15	5	10	100
	2012 – 13	76	20	4	12	100
	2011 – 12	1	1	0	1	100
	* M = Male F = Female					



27.	Diversity of Students year: M.Sc.																				
<table border="1"> <thead> <tr> <th data-bbox="298 312 605 415">Name of the Course / year</th> <th data-bbox="610 312 917 415">% of students from the same state</th> <th data-bbox="922 312 1200 415">% of students from other States</th> <th data-bbox="1205 312 1422 415">% of students from abroad</th> </tr> </thead> <tbody> <tr> <td data-bbox="298 422 605 485">2014 – 15</td> <td data-bbox="610 422 917 485">100</td> <td data-bbox="922 422 1200 485">0</td> <td data-bbox="1205 422 1422 485">0</td> </tr> <tr> <td data-bbox="298 491 605 554">2013 – 14</td> <td data-bbox="610 491 917 554">100</td> <td data-bbox="922 491 1200 554">0</td> <td data-bbox="1205 491 1422 554">0</td> </tr> <tr> <td data-bbox="298 560 605 623">2012 – 13</td> <td data-bbox="610 560 917 623">100</td> <td data-bbox="922 560 1200 623">0</td> <td data-bbox="1205 560 1422 623">0</td> </tr> <tr> <td data-bbox="298 630 605 693">2011 – 12</td> <td data-bbox="610 630 917 693">100</td> <td data-bbox="922 630 1200 693">0</td> <td data-bbox="1205 630 1422 693">0</td> </tr> </tbody> </table>		Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad	2014 – 15	100	0	0	2013 – 14	100	0	0	2012 – 13	100	0	0	2011 – 12	100	0	0
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2014 – 15	100	0	0																		
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2012 – 13	100	0	0																		
2011 – 12	100	0	0																		
28.	How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil																				
29.	Student progression																				
<table border="1"> <thead> <tr> <th data-bbox="342 890 917 947">Student progression</th> <th data-bbox="922 890 1377 947">Against % enrolled</th> </tr> </thead> <tbody> <tr> <td data-bbox="342 953 917 995">UG to PG</td> <td data-bbox="922 953 1377 995">N.A</td> </tr> <tr> <td data-bbox="342 1001 917 1043">PG to M. Tech.</td> <td data-bbox="922 1001 1377 1043">01</td> </tr> <tr> <td data-bbox="342 1050 917 1092">PG to Ph.D.</td> <td data-bbox="922 1050 1377 1092">N.A</td> </tr> <tr> <td data-bbox="342 1098 917 1140">Ph.D. to Post-Doctoral</td> <td data-bbox="922 1098 1377 1140">N.A</td> </tr> <tr> <td data-bbox="342 1146 917 1266"> Employed • Campus selection • Other than campus recruitment </td> <td data-bbox="922 1146 1377 1266"> N.A N.A </td> </tr> </tbody> </table>		Student progression	Against % enrolled	UG to PG	N.A	PG to M. Tech.	01	PG to Ph.D.	N.A	Ph.D. to Post-Doctoral	N.A	Employed • Campus selection • Other than campus recruitment	N.A N.A								
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Employed • Campus selection • Other than campus recruitment	N.A N.A																				
30.	Details of Infrastructural facilities																				
<table border="1"> <tbody> <tr> <td data-bbox="264 1348 326 1451">a)</td> <td data-bbox="331 1348 852 1451">Library</td> <td data-bbox="857 1348 1438 1451">Books are available in the central library.</td> </tr> <tr> <td data-bbox="264 1457 326 1560">b)</td> <td data-bbox="331 1457 852 1560">Internet facilities for Staff & Students</td> <td data-bbox="857 1457 1438 1560">Three computers with one LCD.</td> </tr> <tr> <td data-bbox="264 1566 326 1669">c)</td> <td data-bbox="331 1566 852 1669">Class rooms with ICT facility</td> <td data-bbox="857 1566 1438 1669">Available.</td> </tr> <tr> <td data-bbox="264 1675 326 1778">d)</td> <td data-bbox="331 1675 852 1778">Laboratories</td> <td data-bbox="857 1675 1438 1778">One laboratory.</td> </tr> </tbody> </table>		a)	Library	Books are available in the central library.	b)	Internet facilities for Staff & Students	Three computers with one LCD.	c)	Class rooms with ICT facility	Available.	d)	Laboratories	One laboratory.								
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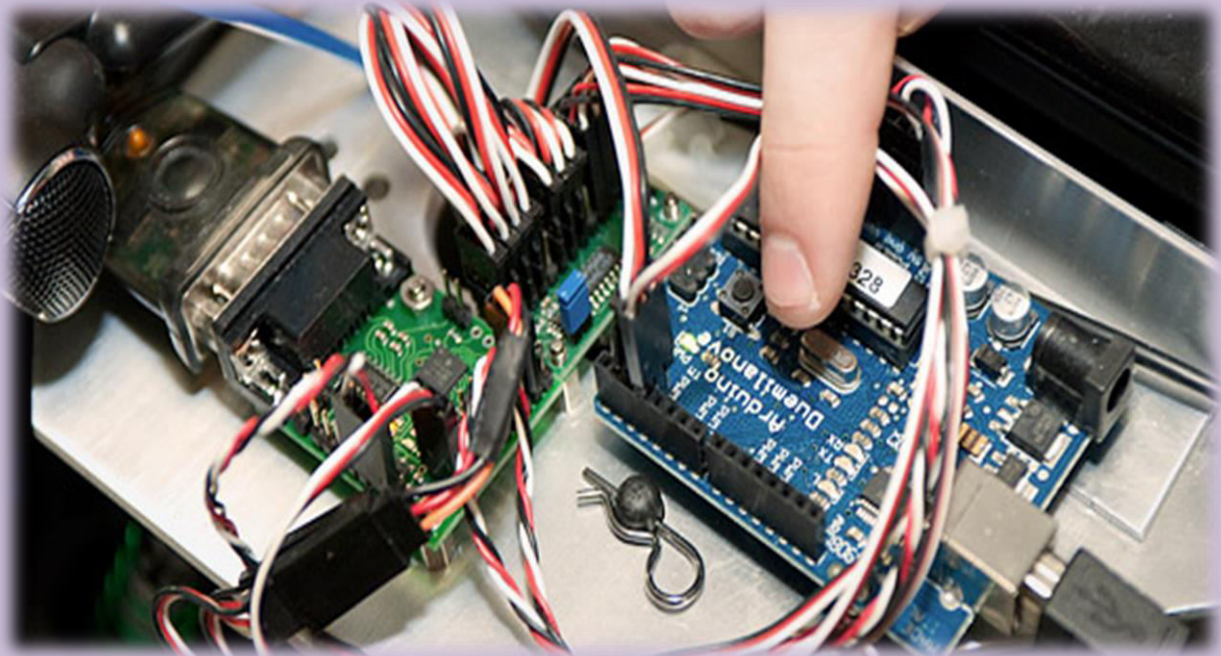


31.	<p>Number of students receiving financial assistance from college, university, government or other agencies:</p> <p>Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for M.Sc. classes. Complied data is given in criterion V</p> <p>Table: EVS31 No. of M.Sc. students getting financial assistance:</p> <table border="1" data-bbox="261 520 1458 766"><thead><tr><th>Year</th><th>Govt. Scholarship</th><th>Govt. Freeships</th><th>Any other financial aid</th><th>Total no. of students</th></tr></thead><tbody><tr><td>2013 – 14</td><td></td><td></td><td></td><td></td></tr><tr><td>2012 – 13</td><td></td><td></td><td></td><td></td></tr><tr><td>2011 – 12</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students	2013 – 14					2012 – 13					2011 – 12				
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2013 – 14																					
2012 – 13																					
2011 – 12																					
32.	<p>Details on student enrichment programme (special lectures / workshops / seminar) with external experts.</p> <ul style="list-style-type: none">➤ One national conference on Biodiversity: Status and Challenges in Conservation.➤ Five workshops (Details enclosed in Annexure I).➤ Eleven guest lecturers (refer question no.23).➤ Six excursions during last four years.➤ Excursions:<ul style="list-style-type: none">• Yeoor (Sanjay Gandhi National park) on 9th August 2013.• Fishery exhibition to Vashi, Navi Mumbai on 17th December 2013.• Velneshwar excursion on 16th and 17th September 2013.• Bhavale excursion on 9th March 2013.• Biomedical waste treatment plant, Shivaji hospital, Kalwa on 15th march 2014.• Drinking water purification plant, Mulund on 21st September 2014.• Maharashtra Nature Park (T.Y.B.Sc; Applied Component) on 25st September 2014.• Thane Municipal Corporation; Disaster Management Cell on 29th September 2014.• Ranthambore - Bharatpur from 22nd January to 27th January 2014.																				
33.	<p>Teaching methods adopted to improve student learning</p> <p>Teaching methods :-</p> <ul style="list-style-type: none">▪ ICT enabled teaching.▪ Question Answer sessions.▪ Group Discussion.▪ Use of natural surroundings in the campus for lectures and practicals on Biodiversity.																				
34.	<p>Participation in Institutional Social Responsibility (ISR) and Extension activities.</p> <p>Two teaching staff members are actively involved in activities conducted by NSS.</p> <p>All the teaching staff members conducted workshops, guest's lectures and various research activities to raise environment awareness.</p>																				

35.	<p>SWOC analysis of the department and Future plans.</p> <p>Strengths:</p> <ul style="list-style-type: none">• Strong research culture.• Young and Energetic staff.• Good interaction between students and teachers.• Group study / Collaborative learning.• Students' seminar. <p>Weakness:</p> <ul style="list-style-type: none">• Needs improvement in looking after weak students.• Less attention is given to bridge courses. <p>Opportunities:</p> <ul style="list-style-type: none">• More research project can be taken.• Student's participation in research projects will be encouraged. <p>Challenges:</p> <ul style="list-style-type: none">• Increase in Interdisciplinary activities <p>Future Plans:</p> <ol style="list-style-type: none">1) Weak students will be detected from previous year's academic performance and extra lectures will be arranged for such academically weak students.2) Efforts will be taken to submit the plans for major/and minor research projects.3) Efforts will be taken to involve more students in the minor / student's research projects.4) Skill oriented certificate courses will be arranged by the department.5) To make teaching interesting for the students, use of ICT will be increased.6) To improve upon institute-industry collaboration and to arrange for Campus recruitment7) Updating of departmental library will be given priority.
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Department of Information Technology / Computer Science





Department of Information Technology / Computer Science

I.T. / C.S.

1.	Name of the department	INFORMATION TECHNOLOGY & COMPUTER SCIENCE										
2.	Year of Establishment	Information Technology : 2001 – 2002 Computer Science : 2008 – 2009										
3.	Names of Programmes / Courses offered	B.Sc. (Information Technology) : 2001 - 2002 M.Sc. (Information Technology) : 2004 – 2005 B.Sc. (Computer Science) : 2008 – 2009										
4.	Names of Interdisciplinary courses and the departments/units involved	Nil										
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.										
6.	Participation of the department in the courses offered by other departments	Library Department B. Lib. M. Lib. B.Sc. (Human Science) B.Sc. (Interdisciplinary)										
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	IDOL F.Y.B.Sc. (I.T.); S.Y.B.Sc. (I.T.)										
8.	Details of courses/programmes discontinued (if any) with reasons: Nil											
9.	Number of Teaching posts:	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Filled</th> </tr> </thead> <tbody> <tr> <td>Professors</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Associate Professors</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Asst. Professors</td> <td style="text-align: center;">11*</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">11</td> </tr> </tbody> </table> <p>* As these departments are Unaided, all the teaching posts are filled by management depending upon the workload.</p>		Filled	Professors	-	Associate Professors	-	Asst. Professors	11*	Total	11
	Filled											
Professors	-											
Associate Professors	-											
Asst. Professors	11*											
Total	11											



10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)					
	Name	Qualification	Designation	No. of Years of Experience	Specialization	Number of workshops/ seminars / conferences attended since 2010
	Mr. A. A. Kale	M.Sc. (Phy) M. Tech (I.T.)	Asst. Professor	17	Electronics and Telecomm	21
	Ms. Sony Yadav	M. Sc. (I.T.)	Asst. Professor	03	Information Technology	5
	Ms. Renuka Sabapatti	M. Sc. (I.T.)	Asst. Professor	03	Information Technology	5
	Ms. Meenakshi Yadav	M.C.A.	Asst. Professor	06 months	Computer Science	NIL
	Ms. Madhusmita Mohanty	M. Sc. (I.T.)	Asst. Professor	06 months	Information Technology	NIL
	Ms. Neelam Palande	M. Sc. (I.T.)	Asst. Professor	06 months	Information Technology	NIL
	Ms. Lata Shikhare	M.C.A.	Asst. Professor	06 months	Computer Science	NIL
	Ms. Pradnya Pawar	M.Sc. (Comp. Sci)	Asst. Professor	03	Comp. Sci.	NIL
	Ms. Anam Mokashi	M.Sc. (I.T.)	Asst. Professor	06 months	Information Technology	NIL
	Ms. Kavita Patil	M.Sc. (I.T.)	Asst. Professor	06 months	Information Technology	NIL
	Ms. Asfa Khan	M.Sc. (I.T.)	Asst. Professor	06 months	Information Technology	NIL
11.	List of senior visiting faculty			1) Mrs. M. J. Gholba 2) Mr. Hiren Dand 3) Mr. Rajendra Patil		
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.			Nil		



13.	Student -Teacher Ratio (programme wise)	FY- 21: 1 , SY - 21: 1 , TY - 21: 1																											
14.	Number of academic support staff (technical) and administrative staff; sanctioned and filled	: 05																											
15.	Qualifications of teaching faculty with D.Sc. / D. Litt. / Ph.D / M. Phil/PG.:	PG : 11																											
16.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received :	Nil																											
17.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received :	Nil																											
18.	Research Centre /facility recognized by the University	IDOL																											
19.	Publications: Number of publications	From Jan 2010- Nov.2014																											
		<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Name of the faculty</th> <th>International Journal</th> <th>National Journal</th> <th>Proceedings/ College Journal</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Mr. A. A. Kale</td> <td>Nil</td> <td>Nil</td> <td>03</td> </tr> <tr> <td>2.</td> <td>Ms. Sony Yadav</td> <td>01</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>3.</td> <td>Ms. Renuka Sabhapati</td> <td>01</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>4.</td> <td>Ms. Meenakshi Yadav</td> <td>01</td> <td>Nil</td> <td>Nil</td> </tr> </tbody> </table>			Sr. No.	Name of the faculty	International Journal	National Journal	Proceedings/ College Journal	1.	Mr. A. A. Kale	Nil	Nil	03	2.	Ms. Sony Yadav	01	Nil	Nil	3.	Ms. Renuka Sabhapati	01	Nil	Nil	4.	Ms. Meenakshi Yadav	01	Nil	Nil
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3.	Ms. Renuka Sabhapati	01	Nil	Nil																									
4.	Ms. Meenakshi Yadav	01	Nil	Nil																									
20.	Areas of consultancy and income generated:	Nil																											
21.	Faculty as members in	a. International Committees : Nil b. National committees : 01 c. Editorial Boards : Nil																											
22.	Student projects	a) Percentage of students who have done in-house projects including inter departmental / programme: Information Technology : 50 %; Computer Science : 100 % b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Information Technology : 50 %																											
23.	Awards/ Recognitions received by faculty and students :	Students: ➤ Mr. Abhay Kadam got selected as Lieutenants in Indian Army.																											



24. List of eminent academicians and scientists / visitors to the department

Sr. No	Name of the person	Designation	Purpose of the visit
1.	Ms. Sharaddha V. Indale	Assistant Professor, New Arts, Commerce & Science College, Ahmednagar.	Lecture on Fuzzy Logic & Its Applications.
2.	Dr. Pramod Karulkar	Gig Harbor	Lecture on Nanotechnology.
3.	Mr. J. P. Raut	Sr. Marketing Executive. SEED InfoTech, Mumbai	Soft Skill Enhancement, Interview Techniques.
4.	Mr. Harshal Kulkarni	Sr. Head, Aptech Computer Education	Lecture on latest Technology in Oracle.
5.	Mr. Gorakh Borude	Manager, Aptech Computer Education	Lecture on BIG DATA.
6.	Mr. Indu Yadav	Branch Manager, Wavez Tech.	Enlightening students in multiple aspects of Information Technology.
7.	Dr. Agarkar	Research Scientist, BARC	Lecture on "Science and Technology Development in China".
8.	Mrs. Nikita Wani	HOD, Prof., Jhunjhunwala College, Ghatkopar	To guide T.Y.B.Sc computer science students related to their syllabus.
9.	Mr. Pradeep Bhosekar	Assistant Manager, Godrej Company.	Lecture on ERP.
10.	Mr. Dinkar Borde	Former Scientist, Government of India	Keynote speaker for "intelligence System" conference
11.	Mr. Ravi Pradhan	Country Manager, VIA Telecom & Technology / Ex – IBM, USA	Chief guest for valedictory function of "Cloud Technology" conference.
12.	Mr. Sidhartha Gupta	Microsoft India SMSG DPE Academia	Guest of Honor for "Cloud Technology" conference.
13.	Mr. B. A. Damahe	Principal, L&T Institute of Technology, Powai	Chief guest for Inaugural function of "Cloud Technology" conference.



25. Seminars/ Conferences / Wokshops organized & the source of funding

a) International : Nil

b) National : 03

- Conference on “Intelligent System”, November 2010.
- Conference on “Cloud Technology”, November 2011.
- Conference on “FUTECH”, January 2013.

c) University level : Workshop on Revised Syllabus.

d) College level : 05

- Workshop on Wireless Robotics by YUPS Technology, December 07 and 08, 2011.
- Workshop on Ethical Hacking with Techfest 2013, IIT Bombay, November 23 and 24, 2012
- On day Training Programme on “Entrepreneurship Awareness Camp (EAC) in collaboration with Maharashtra Industries Development Institute, December 05, 2012.
- Workshop on Geographical Information System, December 18, 2012.
- Research paper competition “IT Intelligence Innovation”, February 06, 2015.

26. Student profile programme/course wise:

T.Y.B.Sc. : (Information Technology)

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	118	118	52	66	64.95%
2012-13	113	113	59	54	69.02%
2011-12	112	112	54	58	76.79%
2010-11	114	114	50	64	64.03%



M.Sc. : (Information Technology)

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	18	18	3	15	88.89%
2012-13	20	20	2	18	89.47%
2011-12	20	20	7	13	100%
2010-11	20	20	5	15	100%

T.Y.B.Sc. : (Computer Science)

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M*	F*	
2013-14	21	21	11	10	85.71%
2012-13	24	24	11	13	75.00%
2011-12	21	21	10	11	80.95%
2010-11	22	22	6	16	77.27%

* Male *Female



27. Diversity of Students year:

T.Y.B.Sc. (Information Technology)

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	100	0	0
2012-13	99.99	0.01	0
2011-12	100	0	0
2010-11	100	0	0

M.Sc. (Information Technology)

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	100	0	0
2012-13	100	0	0
2011-12	100	0	0
2010-11	100	0	0

T.Y.B.Sc. (Computer Science)

Name of the Course / year	% of students from the same state	% of students from other States	% of students from abroad
2013-14	99.99	0.01	0
2012-13	100	0	0
2011-12	100	0	0
2010-11	100	0	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Mr. Abhay Kadam selected as Lieutenants in Indian Army by clearing NDA.



29. Student progression:

Student progression	Against % enrolled
UG to PG	30 %
PG to M. Phil.	N.A
PG to Ph.D.	N.A
Ph.D. to Post-Doctoral	N.A
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	15 % Data not available

30. Details of Infrastructural facilities:

a)	Library	Separate Library jointly for IT and CS students with 3350 books. 01 Computer
b)	Internet facilities for Staff & Students	All computers are having Internet.
c)	Class rooms with ICT facility	02 with 03 Computers
d)	Laboratories	03 Laboratories with 89 Computers.
e)	Head; Staff Room; Non-teaching room	03 Computers

31. Number of students receiving financial assistance from college, university, government or other agencies:

Financial assistance is provided to SC/ ST/ OBC/ EBC etc. as per government rules. Separate data is not recorded as students opt more than one subject for FY and SY classes. Complied data is given in criterion V

Table: IT 31 No. of T.Y. B.Sc. students getting financial assistance:

Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students
2013-14	15	14	NIL	29
2012-13	19	13	NIL	32
2011-12	18	26	NIL	44
2010-11	12	25	NIL	37

Table: MSC_IT 31 No. of T.Y. B.Sc. students getting financial assistance:

Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students
2013-14	7	9	NIL	16
2012-13	3	12	NIL	15
2011-12	2	10	NIL	12
2010-11	1	6	1	8

Table: CS 31 No. of T.Y. B.Sc. students getting financial assistance:

Year	Govt. Scholarship	Govt. Freeships	Any other financial aid	Total no. of students
2013-14	2	1	NIL	3
2012-13	-	2	NIL	2
2011-12	1	2	NIL	3
2010-11	4	7	NIL	11

32. Details on student enrichment programme (special lectures / workshops / seminar) with external experts.

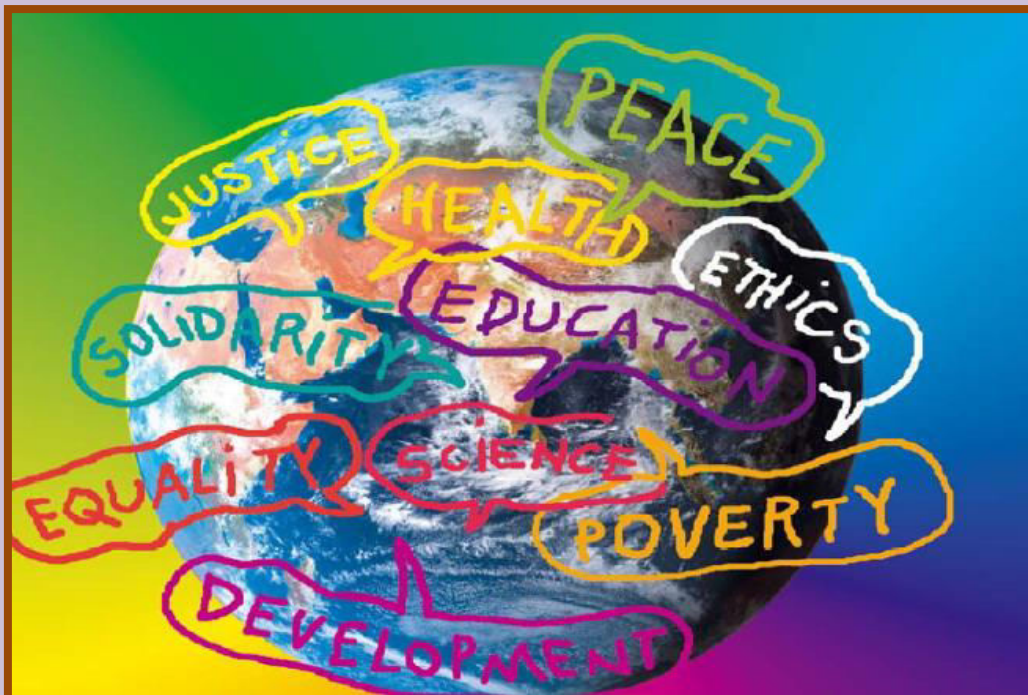
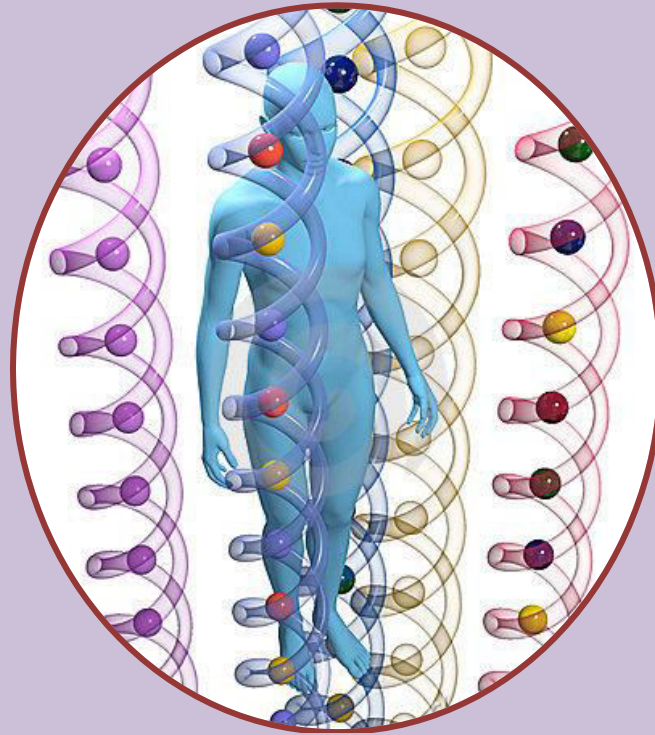
Occasionally we call for external subject experts whenever possible. Regular workshops on various technologies are arranged.



33.	Teaching methods adopted to improve student learning Teaching methods :- <ul style="list-style-type: none">▪ ICT enabled teaching.▪ Movies / Clips of certain topics.
34.	Participation in Institutional Social Responsibility (ISR) and Extension activities. Entire department is committed for any kind of help required to the institution.
35.	SWOC analysis of the department and Future plans. Strengths: <ul style="list-style-type: none">✓ Hard working and trained Non-teaching staff, IT Back bone of College. Weakness: <ul style="list-style-type: none">✓ Moving teaching staff members, Departmental library facility. Opportunities: <ul style="list-style-type: none">✓ Library improvement, Laboratory up gradations. Challenges: <ul style="list-style-type: none">✓ Learning new technologies. Future Plans: <ul style="list-style-type: none">✓ Extensive use of IT in teaching.



Department of Foundation Course / Human Science / Interdisciplinary





Department of Foundation Course / Human Science / Interdisciplinary Course

F.C / H.S. / ID

1.	Name of the department	FOUNDATION COURSE (F.C.) HUMAN SCIENCE (H.S.) INTERDISCIPLINARY (ID)				
2.	Year of Establishment	F.C. – 1969 H.S. – 2014 ID – 2014				
3.	Names of Programmes / Courses offered	F.C. is subject for F.Y. and S.Y. level. F.Y.B.Sc. (H.S.) & F.Y.B.Sc. (ID) first batch.				
4.	Names of Interdisciplinary courses and the departments/units involved	B. Sc. in H. Sc. & B. Sc. in ID, Zoology, EVS, Statistics.				
5.	Annual/ semester/choice based credit system (programme wise)	Credit based Semester System.				
6.	Participation of the department in the courses offered by other departments	N.A				
7.	Courses in collaboration with other universities, industries, foreign institutions, etc.	N.A				
8.	Details of courses/programmes discontinued (if any) with reasons: N.A					
9.	Number of Teaching posts:					
		Sanctioned	Filled			
	Associate Professors	F.C. – 1	F.C. – 1			
10.	Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)					
	Name	Qualification	Designation	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years	Number of workshops/ seminars / conferences attended since 2010
	Mr. S. K. Bhosale*	M.A, NET	Assist. Professor	11 Years	-	27
	Ms. Aditi. M Deuskar**	MA	Assist. Professor	1 year	Psychology	05
	* Foundation Course Teacher					
	**Human Science and Interdisciplinary Science Course Co-ordinator					



11.	List of senior visiting faculty	Teachers from Zoology, EVS, Statistics, Information Technology conduct the lectures for (H.S.) & (ID)																	
12.	Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty.	F.C. – Nil H.S. – 100% ID – 100%																	
13.	Number of academic support staff (technical) and administrative staff; sanctioned and filled F.C – N.A Human Science and Interdisciplinary Science Course practicals are conducted by respective departments (Zoology, Botany, EVS)																		
14.	Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : Nil																		
15.	Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Nil																		
16.	Research Centre /facility recognized by the University	N.A.																	
17.	Publications: Number of publications From Jan 2010- Nov.2014																		
		<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Name of the faculty</th> <th>International Journal</th> <th>National Journal</th> <th>Proceedings/ College Journal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mr. S. K. Bhosale</td> <td>-</td> <td>-</td> <td>02</td> </tr> <tr> <td>2.</td> <td>Ms. Aditi Deuskar</td> <td>-</td> <td>-</td> <td>01</td> </tr> </tbody> </table>			Sr. No.	Name of the faculty	International Journal	National Journal	Proceedings/ College Journal	1	Mr. S. K. Bhosale	-	-	02	2.	Ms. Aditi Deuskar	-	-	01
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1	Mr. S. K. Bhosale	-	-	02															
2.	Ms. Aditi Deuskar	-	-	01															
18.	Areas of consultancy and income generated. : N.A.																		
19.	Student projects a) Percentage of students who have done in-house projects including inter departmental / programme: F.C. – 100 % b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: Nil																		
20.	Awards/ Recognitions received by faculty and students : Nil																		
21.	Seminars/ Conferences/Workshops organized & the source of funding : N.A																		
22.	Student profile programme/course wise: N.A as F.C. course is taught for FY and SY classes only & Human Science and Interdisciplinary Science Course started from this academic year.																		
23.	How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? N.A																		
24.	Student progression : N.A as F.C. is for FY and SY and Human Science and Interdisciplinary courses stated in 2014-15																		



25.	Details of Infrastructural facilities	<table border="1"> <tr> <td data-bbox="264 321 326 401">a)</td> <td data-bbox="334 321 854 401">Library</td> <td data-bbox="862 321 1438 401">Books are available in the central library.</td> </tr> <tr> <td data-bbox="264 411 326 491">b)</td> <td data-bbox="334 411 854 491">Internet facilities for Staff & Students</td> <td data-bbox="862 411 1438 491">With Department and Library</td> </tr> <tr> <td data-bbox="264 501 326 615">c)</td> <td data-bbox="334 501 854 615">Laboratories</td> <td data-bbox="862 501 1438 615">For FC labs are not required. For Human Science and Interdisciplinary courses Zoology and EVS Labs are used.</td> </tr> </table>	a)	Library	Books are available in the central library.	b)	Internet facilities for Staff & Students	With Department and Library	c)	Laboratories	For FC labs are not required. For Human Science and Interdisciplinary courses Zoology and EVS Labs are used.
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26.	Number of students receiving financial assistance from college, university, government or other agencies: Data given in Criteria 5.										
27.	Details on student enrichment programme (special lectures / workshops / seminar) with external experts. : Seminar, Group Discussion etc. activities are conducted.										
28.	Teaching methods adopted to improve student learning Teaching methods :- <ul style="list-style-type: none"> ▪ Chalk and talk. ▪ ICT enabled teaching. 										
29.	Participation in Institutional Social Responsibility (ISR) and Extension activities. Active members of Jagar Janivancha.										
30.	<p>SWOC analysis of the department and Future plans.</p> <p>F.C. :</p> <p>Strengths:</p> <ul style="list-style-type: none"> ✓ Single person department and FC is compulsory subject for all students at FY and SY level so there is interaction with many students of the college. <p>Weakness:</p> <ul style="list-style-type: none"> ✓ Single person department so adjustments are to be done with other department persons. <p>Opportunities:</p> <ul style="list-style-type: none"> ✓ To motivate students to do project. <p>Challenges:</p> <ul style="list-style-type: none"> ✓ To improve communication skills of students. <p>Future Plans:</p> <ul style="list-style-type: none"> ✓ To use more ICT in teaching. <p>Human Science and Interdisciplinary Course are started this year. Hence in the initial stage.</p>										

Glossary

A		G	
ANIS	Anndhashardhha Nirmulan Samiti	GB	Governing Bodies
API	Annual Performance Index	GD	Group Discussions
AQAR	Annual Quality Assurance Report	GO	Government Organization
		GOM	Government of Maharashtra
B		H	
BNBCS	B.N.Bandodkar College of Science	HOD	Head of the Department
B.Sc	Bachelor of Science	HOPE	Here On Project Environment
BOS	Board of Studies		
B.L.I.Sc	Bachelors In Library Sciences	IT	Information technology
BSNL	<i>Bharat Sanchar Nigam Limited</i>	IDOL	Institute Distance open learning
BARC	Bhabha Atomic Research Centre	IQAC	Internal Quality Assurance cell
		ICT	Information & communication technology
BSE	Bombay Stock Exchange	I	
BIT	Brain Intelligence Test		
C			
CC	College Committee	JNU	Jawaharhal Nehru University
CCTV	Closed-circuit television	L	
CHB	Clock Hour Basis	LIC	Local Inspection Committee
CGSI	Consumer Guidance Society Of India	LMC	Local Management Committee
CPSC	Consumer Protection Service Council	M	
D		MCQ	Multiple choice Questions
DA	Daily Allowance	M.L.I.Sc	Masters in Library Sciences
		M.S.E.B	Maharashtra State Electricity Board
DLLE	Department of Lifelong Learning and Extension	M.Sc	Masters of Science
Dr. College	Degree College	Mts	Meters
DST	Department of Science and Technology	MHW	Mission Happy World
DBT	Department of Biotechnology	MU	Maharashtra University
DEW	Department of Education and Water	MVV	Mission Vision and Values
E		N	
E.V.S.	Environmental Science	NA	Not Applicable
F		NAAC	National Assessment and Accreditation Council
FIST	Funds for Improvement of Science and Technological Infrastructure	NCC	National Cadet Corps
FYJC	First Year Junior College	NERI	<i>Nuclear Energy Research Initiative</i>
F.Y.B.Sc	First Year of Bachelor of Science	NGO	Non-Government Organization



	N		
NIO	National Institute of Oceanography		
NSS	National Service Scheme		U
NSE	National Stock Exchange	UG	Under Graduate
	O	UGC	University Grants Commission
OPAC	Online Public Access Catalogue	UOM	University of Mumbai
OS	Office Superintendent	UPS	Uninterruptible Power Supply
	P		V
Ph.D	Doctor of Philosophy	VC	Vice Chancellor
PG	Post-graduation	VPM	Vidya Prasark Mandal
PTA	Parents Teachers Association	VSNL	Videsh Sanchar Nigam Limited
PCRA	Petroleum Conservation Research Association		W
	R	WDC	Women Development Cell
RTO	Road Traffic Office	Wi-Fi	Wireless Fidelity
	S	WWF	World Wide Fund For Nature
SACON	Salim Ali Center for Ornithology and Natural History		Y
SG	State Government	YCMOU	Yashwantrao Chavan Maharashtra Open University
SLs	Senior Leaders		
SSA	Student Self Assessment		
SSC	Secondary School Certificate		
SSI	Student Satisfaction Index		
S. Y. B. Sc	Second Year of Bachelor of Science		
SWOT	Strength, Weakness, Opportunity and Threat		
	T		
TA	Travel Allowance		
TDM	Thearapeutic Drug Monitoring Laboratory		
TERI	The Energy Research Institute		
TIFR	Tata Institute of Fundamental Research		
TMC	Thane Municipal Corporation		
TY	Third Year		
T.Y. B.Sc.	Third Year of Bachelor of Science		



***Annexure I,
II & III***

Annexure – I
Accreditation certificate of first cycle



Peer team report of first cycle

Report of the Peer Team on the Institutional Accreditation of
B. N. Bandodkar College of Science, Thane – 400 601, Maharashtra.

Section I : Introduction

Balkrishna Naik Bandodkar College of Science (BNBCS), was established in 1969 under the management of Vidya Prasarak Mandal (VPM), Thane, on a 13 acre piece of land reclaimed from the marshy, muddy area inundated by water of the nearby Thane Creek under high tide. Over the years the land was developed with the efforts of the local Philanthropists and a committed management under the leadership of Dr. Vasudeo Narayan Bedekar.

The college catering to students from the areas of Thane, Dombivli, Kalyan and their vicinity, was initially affiliated to the University of Pune. In June 1975, on redefining the jurisdiction of the Mumbai University, the affiliation of the college was shifted from the University of Pune to Mumbai University. The College is a grant-in-aid (g-i-a) institution and receives 100% salary grant from the Govt. of Maharashtra. The College is recognized by the University Grants Commission and received the recognition under 2f and 12B in June 1985.

Initially the College was started as a composite college with all the three faculties, viz. Arts, Commerce and Science. In 1969, a separate building was constructed out of a donation given by the then Chief Minister of Goa, Shri Bhausahab Bandodkar. In 1975 the science departments were given independent status and thus came into existence the Balkrishna Naik Bandodkar College of Science (BNBCS), named after the father of the donor of the present block Shri Bhausahab Bandodkar.

VPM runs 13 institutions, including BNBCS. Located on a Campus of about 13 acres, in the suburbs of Bombay the BNBCS shares the campus with four other institutions viz. Arts & Commerce College, Law College, College of Management and a Polytechnic. Apart from the UG, PG, PG DIPLOMA and Research programmes conducted in departments of Chemistry, Mathematics, Zoology, Physics, Statistics and Botany the college also provides education at the +2 level. While the college has separate staff for the Junior and Senior sections the facilities are optimally shared.

The College, at present, runs 7 B.Sc. degree programs, 4 Post Graduate degree programs and two Postgraduate Diploma programs. While the PG programmes in Botany and Zoology are by research, the PG programmes offered in Chemistry include both by Papers and by Research. The department of Zoology is a recognized research center for Ph.D. in Zoology. In

the unaided section the college offers a self-financing UG course in Information Technology (B.Sc. (I.T.)). The college is also a recognized center of Yashwantrao Chavan Maharashtra Open University (YCMOU) for offering B.Lib.Sc. and M.Lib.Sc. courses through distance education mode.

There are 40 permanent teachers of whom 11 hold Ph.D. degree, 12 hold an M.Phil. and 17 hold a Post Graduate degree as the highest qualification. 17 teachers are female and 27 male. Among 18 temporary teachers 5 have Ph.D., and 13 PG qualifications. 12 of them are female and 3 male. There are 47 technical staff, of whom 3 are female.

At present the college has 1160 students on its rolls. There are 1129 students on the UG roll under the g-i-a pattern, of whom 556 are female and 573 male. At the PG level, enrolment stands at 30, of whom 14 are female, including 2 female out of 4 at Ph.D. Under the self-financing course of B.Sc. (I.T.) the enrolment of students stands at 165 of whom 69 are female and 96 are male.

During the years of 2000-2001 and 2001-2002 the dropout rates at UG level was 12.1 % and 6.94 % respectively. At the PG level the dropout rate was around 2 %. The success rates are 86 % and 88 % respectively at UG and PG level.

The unit cost of college education for the institution is Rs. 28,744 (approx.) inclusive of salary. Except for the B.Sc. (IT) the College follows an annual pattern of examinations. The support services / facilities in the college include Central Library, Computer Centre, Sports, Press, Workshop, Canteen, Vehicle parking shed, Auditorium, Audio Visual facilities, and Advanced Study Centre.

The BNBCS has requested for the assessment and accreditation by the National Assessment and Accreditation Council (NAAC) in October 2002. The NAAC appointed a Peer Team comprising Prof. N. Unnikrishnan Nair, Vice-Chancellor, Cochin University of Science and Technology, Kerala, as Chairman, Prof. Aroon Krishnarao Heblekar, Former Principal, P.E.S. College of Arts & Science, Ponda, Goa, and Prof. Y. Azeez Ahmed, Former Principal, Alameen College, Bangalore, as members for Assessing the institution as per the prescribed procedures of NAAC. Dr. (Mrs.) K. Rama, Deputy Advisor, NAAC, co-ordinated the whole exercise.

The Peer Team visited the College on 27 and 28 August 2003. After visiting the various departments, support facilities, meeting and discussing with the teaching and non-teaching staff, alumni, parents, students and members of the management and verifying the documents, the Peer Team recorded its observations and recommendations in various sections as follows.

Section II : Criterion wise analysis

Criterion I : Curricular Aspects

The college has a well spelt out mission and vision statements. With its mission to mould students into rational thinkers, competent workers and socially aware citizens and a vision for imparting quality education in Science the college has been striving to serve the students from the Thane district of the Maharashtra. The College runs 7 UG programs, 4 PG programs and a Ph. D. program under the g-i-a pattern, all in the general science streams. Looking into the demand for the graduates in computer science and Information Technology etc. the college during the year 2001-2002 started a self financing course in Information Technology i.e. B.Sc. (IT). The college is a recognized center of the Yashwantrao Chavan Maharashtra Open University (YCMOU) for conducting UG and PG courses in Library Science.

Being an affiliated college, it is guided by the rules and regulations and the curriculum prescribed by the University of Mumbai (MU). At F.Y. B.Sc. in the UG Science stream, a student has a choice of four subject combinations, viz. (1) Physics, Chemistry Mathematics, (2) Physics, Mathematics, Statistics, (3) Chemistry, Botany, Zoology, (4) Information Technology. The first three combinations carry a Foundation Course (F.C.) in addition. At the S.Y. B.Sc. the choice widens and the students have an option for more combinations. With the Foundation Course running in the second year too, six combinations viz. (1) Physics, Chemistry, (2) Physics, Mathematics, (3) Chemistry, Botany, (4) Chemistry, Zoology, (5) Mathematics, Statistics, (6) Botany, Zoology, are offered. Information Technology is offered only for the B.Sc. (IT) students .In the third year, (T.Y) B.Sc., the student singles out on to subject specialization. The specializations offered by the College are (1) Physics - Electronic Instrumentation, (2) Mathematics - Computer Programming and Systems analysis, (3) Chemistry - Drugs and Dyes, (4) Zoology - Fishery Biology, (5) Statistics - Operations Research, (6) Botany – Horticulture and information Technology,

At the PG level the College offers a M. Sc. degree program in Organic Chemistry (by papers and also by research), Physical Chemistry (by research), Zoology (by research) and Botany



(by research). The department of Zoology is a recognized research center and offers Ph.D. programme. To provide vocational training to the present and the past students the college has set up a Center for advanced studies, which provides PG Diploma and certificate courses in Applied Analytical Chemistry, Horticulture and Intellectual property rights as evening courses. The center is planning to start a few other short-term courses in computer science and environmental sciences etc.

Every department has its own Subject clubs. The students are encouraged to actively take part in the various activities of these clubs which include seminars, talks, awareness activities etc. which not only help them in the furtherance of their knowledge but also inspires and provides them a direction for further progression in their respective areas of specialization. The continuation of the project work for the undergraduate students, inspite of its deletion by the Mumbai University in the revised syllabus to inculcate the research orientation and spirit among the students is an appreciable feature.

Four of the faculty are on the Board of studies in their respective subjects and had participated in curricular planning and evolving innovative practices. The College introduces new courses strictly within the framework of the affiliating university even if there is a delay in getting an approval from the university. Most of the teachers of the college are also contributing to the University teaching departments by working there as Honorary basis. The college provides the required adjustments in the college teaching schedule for such teachers.

The college has a strong Industry -- Institute -- Society interaction and has established an Advanced Study Centre, for initiation and co-ordination of the various programmes like the PG diploma course in Applied Analytical Chemistry, partly sponsored by the Lab India Instruments Pvt. Ltd. and the various activities initiated by the Botany and Zoology departments in protection and improvement of the local water bodies and the nearby tribal populations etc. thereby strengthening the linkages.



Criterion II : Teaching – learning and Evaluation

The college admits the UG students strictly on the basis of merit, considering their marks obtained in the H. S. C. Examination. Being a grant in aid college the college follows the University / State Govt. norms with respect to admissions, fee structure and the academic calendar. For admission to the Postgraduate courses the University allocates the students to the college. However for M. Sc. Chemistry, out of ten seats, seven seats are filled by the University and the remaining three seats are filled by the college on the basis of merit.

Different courses are organized for the needy and deserving students for acquainting them with simple statistical techniques, computer literacy programmes and for additional guidance. The advanced learners are identified in the class and are given special guidance for competitive examinations. They are encouraged to take part in various competitions for which the teachers continuously provide guidance like quiz contests etc.

The teachers prepare their academic plan in the beginning of the year under the guidance of the heads of the dept. The progress of implementation is reviewed and discussed in the departmental meetings. The syllabus is unitized and implemented as per the schedule given by the university. Extra lectures are arranged wherever necessary. Tutorials and term end examinations are conducted as per university guidelines. The college regularly organizes students excursions, field trips, Industrial visits and visits to research institutes, etc. for giving the students on hand experience and exposing them to the field situations.

Students are motivated to read reference books to get additional information. The college has a central computer center established by the management in the campus with full-fledged Internet facilities. The students have access to Internet facilities by paying a nominal fee of Rs.15 per hour. The teachers have a free access to the Internet provided in each of their departments, which the students may also avail on request.

The college on an average has 280 working days and 180 teaching days. Ratio of teaching staff to non-teaching staff is 4:5. The evaluation pattern is explained in the classrooms during lectures and the performance of the students is monitored through tutorial tests, class tests, small projects and viva voce. The term end examinations also help the monitoring of their performance.



The college recruits the teachers through the advertisements published in the national newspapers with prior permission of the director of higher education. The selection is through a selection committee appointed as per university norms and the university approves the appointments. In last two years around six teachers participated in various national conferences and two teachers attended international conferences. The college has been actively involved in and organized various conferences and workshops with internal as well as external funding. Students are encouraged to participate in the conferences and present papers.

The college follows the self-appraisal method prescribed by the Govt. of Maharashtra to evaluate the performance of the teachers. The placement committee appointed by the University also takes into account the self-appraisal reports of the teachers, for considering them for the higher grade.

The college also occasionally obtains the feedback from the students on teacher's performance but do not have established mechanisms for analyzing the same and initiating corrective actions.

Through the various subject clubs of the college the students are actively involved in various extension activities and also benefit from the lectures, seminars and talks by eminent persons from various fields. Through these clubs the students get an opportunity to interact and learn with experts from other fields of specialization also.

Though there is no formal linkage at national/international level, the college takes help of the experts from institutes like I. I. T., U. I. C. T., T. I. F. R., B. A. R. C. etc. and regularly organizes lectures and talks by these experts. The students have been consistently performing well in the university examinations and at least six of their students have achieved ranks in University examination.

Criterion III : Research, Consultancy and Extension.

The college promotes research by assigning projects to UG students offering M. Sc. by research in various disciplines etc. The management encourages the teachers to take up various research activities by giving study leave and permitting adjustments in teaching schedule. Almost all the teachers of the Botany and Zoology departments and some from the chemistry department are actively engaged in research. The continuum of the work done through years by the Zoology department on the Thane Creek ecology is a feature worth

appreciation. The work done by the departments of Botany and Zoology in the field of environment and nutrition received international recognition. Both departments have been active in providing consultancy. However a formal mechanism may need to be evolved for better promotion of the same.

There is a designated teacher for extension activities with one of the teachers holding it as an additional charge. The extension activities conducted by the college include community development, social work, health and hygiene awareness, medical camp, blood donation camp, AIDS and environment awareness. The NSS and NCC volunteers assist the traffic police by working as traffic wardens. N.S.S. students and members of Nature Club actively participate in tree plantation programmes in collaboration with NGO "Hariyali". The College is promoting awareness of Yoga practices among the teaching, non-teaching staff and students and also regular Yoga classes are conducted under the expertise provided by NGO "Ambika Yog Kutir, Thane." Apart from these activities the college teachers and students are actively involved with various NGOs working on social and environmental issues in and around the college campus.

Criterion IV : Infrastructure and Learning Resources.

The college is situated on a well-developed campus spread on 13 acres of land. The college along with four other colleges shares the Campus. The BNBCS is run in two spacious buildings with the entire required infrastructure. The college shares the playgrounds, auditorium, general computer center and the conference room with other colleges in the campus.

The college has a well-equipped library with a book bank facility and is open to students during the regular hours. The library is computerized, but is yet to fully put into use. The library has around 15,000 books, and the alumni have been liberally donating for the development of the library. The library has an Internet facility but have to use the reprographic facilities of the office. There is an advisory committee for the library and there is an inter library connection with their own institutions in the campus.

The college is connected to other institutions on the campus through LAN. The computer center managed in the campus by the management provides additional computers and Internet

facilities to the students and teachers of all the institutions in the campus on nominal fee. The working hours are 09:30 hrs. to 17:30 hrs. only on week days. All seven departments have computers of their own.

Apart from the additional courses and inputs available through the advanced study center, the students can also pursue evening courses offered by other institutions within the campus. While the Government provides for 2% of the maintenance cost the management bears the major chunk of it.

The college runs B Lib Sc And M Lib Sc courses under YCMOU. And the college conducts joint programmes on the environmental issues in collaboration with NGOs like Jidnyasa, Envirovigil, HOPE, Hariyali and other Local agencies.

First-aid boxes are available in the college office and gymkhana. Whenever the health problems of students and members of the teaching and non-teaching staff arise, they are advised to approach Dr. V. N. Bedekar (President of VPM) and Dr. V. V. Bedekar (Chairman, VPM) for medical counseling. For psychological counseling students are referred to Institute of Psychological Health run by Dr. Anand Nadkarni, the alumni of the college.

The college uses play grounds in the vicinity for matches and tennis practice. For Cricket, Football, etc. they use the campus grounds. Before the important sports events the outstanding sport persons are provided special coaching by coaches. The college tries to give maximum help in all respects including finance, in terms of traveling allowance to the deserving students to take part in various events and tournaments. Participating students also get concessions in attendance and special classes are arranged for their benefit. The College gives them 10 grace marks in total, according to University norms.

Criterion V: Student Support and Progression

All students who complete minimum prescribed period of study are allowed to appear for the final university examinations and drop out rate is minimal at around 7% at the UG and 2% at the PG level. Though no official record is maintained, the alumni who attended the interaction meeting with the Peer Team reflected the alumni character of the past students and how they are well placed in life. The Alumni association is trying to do things in an organized manner

and though not much of financial support is provided by them they have been contributing to the institution by providing placement services and career guidance and counseling etc.

The college publishes an updated prospectus annually giving the details of the Members of the Management Committee, College Campus, and academic calendar of the College, Courses available, Medium of Instruction, Rules, regulations etc., regarding admission, Fees, deposits etc., Scholarships, Incentives and Concessions etc., Extra Curricular and, Co-Curricular Activities etc. With an aim to provide a platform for expressing the skills of the students the college publishes annually the college magazine "Sanyuja". The students also have the facility to publish their works in various other magazines brought out by the other institutions of the campus and the management. The students are also encouraged to put up various posters and wall magazines from time to time.

The college has instituted various scholarships and Endowment Prizes for the benefits of the students. The college has also several merit and other Government scholarships / freeships.

The college provides for facilities for indoor and outdoor games, nature club, debate club, student magazine and cultural programs, audio video facilities, dance and music competitions and essay writing. The different departments run subject clubs and extra training is given for designing and launching web pages, computer hardware and software courses and rangoli classes. The alumni who are in various fields of fine arts, during the interaction meeting have fondly recollected their experiences and their teachers who encouraged and supported them in pursuit of their interests in music, dance and dramatics. This indicates the type of encouragement the students get for not only pursuing their studies but also their extra curricular interests.

The students are encouraged to register for various certificate and part time courses provided by the institutions in the campus and outside and also in the courses offered in the Advanced Study Center of the college.

Criterion VI : Organisation and Management.

The college has an efficient internal co-coordinating and monitoring system. There is a Board of Management consisting of trustees, president, vice-president, chairman, secretary, and other members of the managing committee, which looks into overall functioning of the institute and resource generation and future planning. There is also a college committee as per the provisions of University of Mumbai, which is headed by the Principal and is responsible for the implementation of the academic calendar and activities as per the instructions of the University and State Government.

There is a Local Managing Committee (LMC), in which there are representatives of Management, members of teaching and non-teaching staff. The L.M.C. meets twice in an academic year and is entrusted with preparation of budget for various departments and to ensure good academic standards in the institute.

To ensure smooth and efficient running of the institute, prepare timetable, and to discuss various circulars received from the University the Principal has periodical meetings of the Heads of the Departments. Regular meetings of the teachers are also conducted to discuss the allocation of the topics to be taught, completion of the topics, setting of the question papers, preparation of the departmental results etc.

In order to carry out extra and co-curricular activities various committees are formed. These committees plan and carry out a variety of activities. Chairperson of the respective committee and Principal supervise the activities continuously.

There are some special committees which help in managing college administration. Some of these committees are Examination Committee, Attendance Committee; Unfair means Inquiry Committee, Library Committee etc., which are headed by the teachers on rotation. To ensure the participation of the students in all events and to discuss the problems of the students, there is a students' council.

The Principal, Vice-Principal in association with the Heads of the Departments and Office superintendent plan the duties to be assigned to the non-teaching staff and supervise their work. Heads of the Departments conduct meetings of the non-teaching staff of their departments and instructions are given to them so as to carry out duties smoothly and efficiently. Principal and Vice-Principal also conduct meetings of the non-teaching staff to discuss various administrative matters. Appraisal report of every non-teaching member is prepared. The college has very efficient and committed non-teaching staffs that are provided training by the teachers of the respective departments on the new techniques introduced. Two short courses were arranged with the help of CMC Computer to enable the non-teaching members to make use of useful computer packages like MS Office.

The college has an internal audit mechanism and grievance redressal cell. Members of non-teaching staff are given advance for festival and Members can take loans from Provident Fund

and VPM's Employees Credit Society. The requirement and eligibility criterion depends upon the amount of loan, purpose of loan, salary of the applicant, previous balance if any.

In order to develop the college academically, the college management gives a freedom to the Principal and the staff. The teachers are encouraged to go for orientation courses, refresher courses, seminars, and workshops and also to organize seminars and guest lectures in the respective subjects.

Criterion VII : Healthy Practices:

- The college has adopted mechanisms for internal quality checks like monitoring of student academic progress, attendance and discipline.
- The college practices latest managerial practices such as strategic planning, teamwork, decision-making and computerization. College provides for wide option in science subjects and has provided for IT at B.Sc. level on self-financing basis.
- College runs postgraduate courses on campus including research at M. Sc. and PhD Levels.
- There is one research project running in the campus within an outlay of approximately Rs.6.5 lakhs.
- The college has linkage with YCM Open University to run B. Lib. Sc. and M. Lib. Sc. courses
- NSS and NCC units are pro-active and are involved in various social activities like traffic control and construction of water harvesting bunds.
- A number of committees help the Principal in running the college.
- Subject clubs support routine teaching for the academic progress of the students.
- Environment projects like solid waste management, zero garbage concept, tree plantation, pulse polio campaign, blood donation, medical camps are run with an active support of the students.
- Lectures by eminent personalities related to social problems such as dowry, terrorism is organized.
- The college provides for outdoor sports, cultural programmes and extension activities for the all round development of the personality of the students
- There is a book bank and, library is kept open for longer hours before and during examination.

- Seminars, tutorials, group discussions, viva voce, field trips, Internet facility are the other activities conducted by the college for supplementing the learning process of the student.
- The college has an active interaction with industries and has been able to generate funds from contributions from philanthropists.

SECTION III : OVERALL ANALYSIS

BNB College of Science has served the population of Thane from 1969 till date by imparting science education to the youth of the area. The college has facilities for both undergraduate and postgraduate education, research and other utility courses like IT and library science.

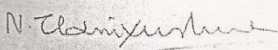
The College has links with two different universities viz. University of Mumbai and Yashwantrao Chavan Maharashtra Open University on matters of academic interest. The Management is proactive, dynamic and enlightened providing leadership and direction to the development of the institution.

While appreciating the various strengths and achievements of the college mentioned under various sections of the report, the committee would like to put forward the following suggestions / recommendations for further improvement of the institution:

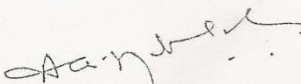
1. All the departments of the college should explore the possibility of securing externally funded research projects from agencies like University Grants Commission, DST, NBHM, DBT etc. This will help teachers to enhance their research potential and to provide much needed infrastructure to carry out research.
2. The college needs more space to accommodate Labs with updated facilities to carry out research. The same may be planned in advance.
3. The number of subscribed Indian Journals needs to be increased and few International Journals are also to be provided in the Library.
4. The traditional subjects taught at present have to be augmented with frontier areas of Science being pursued globally such as Bio technology, Bio Informatics, Bio Chemistry, Micro Biology, Electronic Sciences, Photonics and Artificial intelligence etc.
5. Industry Institute partnership is to be raised from the present level. The Management should lay down norms for consultancy work to encourage the teachers and technical staff.

6. College can think of permitting students to work in Industrial/Business concerns and share their academic time for skill development.
7. Allow provisions for students in various courses to attend part-time certificate/diploma courses in allied subjects along with their regular studies to boost their placement potential.
8. Appointment of supporting faculty with colleagues from industry/business establishments to share their experience with regular students and faculty members.
9. Strive for a college with potential to achieve further academic excellence in the circles of Universities and the State.
10. A corpus fund should be created by raising money from alumni, public and well-wishers for overall development, sustenance and growth of the college.
11. More endowments/scholarships to be instituted to encourage financially backward students belonging to downtrodden sections of the society.
12. Due consideration and importance may be given for moral education classes to both boys and girls.
13. Book Bank facilities are strengthened with participation from alumni and generous contributions of the well-wishers.


The Peer Team appreciates the efforts put in by the management, the Principal, the teaching and non-teaching staff and the stakeholders in developing the institute and providing support. The team also likes to place on record its appreciation for the initiative taken by the Principal and the staff in preparation of Self Study Report and offering itself for Assessment and Accreditation by NAAC. The Peer Team members and NAAC thanks the college management and staff, the alumni, the parents and the students for its continuous support provided to them in successfully completing the exercise.


(Dr. N. Unnikrishnan Nair)

Chairman


(Dr. Aroon K. Heblekar)

Member


(Prof. Y Azeez Ahmed)

Member

I agree with the contents mentioned in the above report


(C.G. Patil)

Principal
B. N. Bandodkar College of Science

Principal
B. N. Bandodkar College of Science
Thane (W) - 400 601.



~ 13 ~

Annexure – II
Accreditation certificate of second cycle



Peer team report of second cycle

Peer Team Report on Institutional Accreditation of B. N. Bandodkar College of Science, Thane Maharashtra

Section I: General	
1. Name & Address of the Institution	B.N. Bandodkar College of Science, Jnanadweepa, College Campus Near Cidco Bus Stop, Thane-400601 (Maharashtra)
2. Year of Establishment	01.06.1969
3. Current Academic Activities at the Institution (Numbers): (2008-09)	
• Faculties/ Schools:	10
• Departments/ Centres:	P.G. = 02, U.G. = 08, M.Sc. Research = 3, Ph. D. = 3
• Programmes/ Courses offered:	
• Permanent Faculty Members:	35 (19 Male, 16 Female)
• Permanent Support Staff:	56
• Students	1245 (U.G. = 1162, P.G. = 61, Ph.D. = 22)
4. Three major features in the Institutional Context (As perceived by the Peer Team):	<ul style="list-style-type: none"> • The college offers Science based courses only. • The college has very good physical infrastructure. • The college has very good ICT facilities for teachers and students.
5. Date of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	21 st – 23 rd January, 2010.
6. Composition of the Peer Team which undertook the on-site visit:	
• Chairman:	Prof. R.S. Bawa. Former Registrar & Professor, Punjab School of Economics, Guru Nanak Dev University, Amritsar – 143005 (PUNJAB).
• Member/ Co-ordinator:	Dr. Udayan Chandra Sarkar, Principal, Banwarilal Bhalotial College, Asansol, P.O. Ushagram – 713303 Distt. Burdwan, (W.B.)
• Member	Prof. D. Chandra Shekhra Reddy, Prof. of Zoology, Department of Zoology, Sri. Venkateshwara University, Tirupati – 517502 (A.P.)
• NAAC Coordinator:	Dr. Ganesh Hegde, Assistant Advisor, (NAAC), Nagarbhavi, Bangalore – 560072

Section II: Criterion Wise Analysis	
2.1 Curricular Aspects:	
2.1.1. Curricular Design & Development	<ul style="list-style-type: none"> The vision and mission of the college are clearly defined and are visible in the courses being offered. Syllabi are framed by the University but the college gives feedback to the BOS about revision of the syllabi.
2.1.2. Academic Flexibility	<ul style="list-style-type: none"> The choice of courses is as per the prescribed syllabi. Limited academic flexibility is available for the students except that the foundation course contains a few interdisciplinary topics. The college may offer more Add-on and interdisciplinary courses.
2.1.3. Feedback on Curriculum	<ul style="list-style-type: none"> The feedback on curriculum is mainly informal. A formal mechanism for feedback may be a better option.
2.1.4. Curriculum Update	<ul style="list-style-type: none"> Curriculum is updated as per the policy of the university. The College faculty plays a role in updating the curriculum when involved as members of BOS or Curriculum Revision Committee.
2.1.5. Best Practices in Curricular Aspects (if any):	<ul style="list-style-type: none"> Meetings with students council are held to get feedback on curriculum. The college management has started courses in foreign language.

2.2 Teaching –Learning & Evaluation	
2.2.1. Admission Process and Student Profile	<ul style="list-style-type: none"> The admission is based on merit in the qualifying examination only. The admission process is transparent and based on wide publicity. The fee structure and admission procedure is clearly shown in the college prospectus and website.

<p>2.2.2. Catering to the Diverse Needs:</p>	<ul style="list-style-type: none"> • Student's knowledge levels and needs are known through informal discussions. • Students are given guidance for further studies and competitive examinations. • Each teacher acts as a mentor to about 25 students allotted to him / her. • A formal mechanism to identify the slow learners who need remedial coaching may be a better option.
<p>2.2.3. Teaching Learning Process</p>	<ul style="list-style-type: none"> • Teaching is mostly based on lecture method. Sometimes LCD Projectors, OHP etc. are used. • Departmental libraries need to be strengthened particularly in the PG Departments.
<p>2.2.4. Teacher Quality</p>	<ul style="list-style-type: none"> • Some departments have good number of Ph.D. and M.Phil. teachers. • Many faculty members have attended Conferences, Seminars etc. • More teachers need to improve their qualifications.
<p>2.2.5. Evaluation Process and Reforms:</p>	<ul style="list-style-type: none"> • The process of examinations and evaluation is notified well in advance. • Evaluation is done as per University guidelines.
<p>2.2.6. Best Practices in Teaching-Learning and Evaluation</p>	<ul style="list-style-type: none"> • Students are encouraged and motivated to excel. • The college has introduced new courses like Biotechnology, Microbiology and Computer Science at UG level, I.T. at PG level and Ph. D. in Chemistry. • Efforts are made to inculcate moral and social values through extension lectures, Yoga classes etc.

R. Yawa

2.3 Research, Consultancy & Extension:	
2.3.1. Promotion of Research	<ul style="list-style-type: none"> • The College has constituted a Research Committee to promote Research. • Students are encouraged to undertake small research projects. • Some of the teachers have got grants for research projects from outside agencies. • More teachers need to procure research projects and grants.
2.3.2. Research and Publication Output	<ul style="list-style-type: none"> • The faculty has published one book and 35 papers in International and 29 in National Journals in the last five years. • Some of the teachers are recognized as research guides and a few are guiding research. • More teachers need to do research and publish research papers.
2.3.3. Consultancy	<ul style="list-style-type: none"> • Expertise for consultancy available in the college is publicized only during meetings etc. • A formal mechanism to promote consultancy may be required.
2.3.4. Extension Activities	<ul style="list-style-type: none"> • Extension activities are mainly undertaken through NSS and NCC. • Also awareness Programmes are organized in collaboration with some NGOs. • More social activities in the neighborhood may be undertaken.
2.3.5. Collaborations	<ul style="list-style-type: none"> • The college is undertaking extension work in collaboration with some NGOs. • More collaborative work can help the cause of research and extension.
2.3.6. Best Practices in Research Consultancy and Extension	<ul style="list-style-type: none"> • Students are encouraged to undertake minor research projects. • The faculty and the students undertake some extension work.

R. Gaur

2.4 Infrastructure and Learning Resources	
2.4.1. Physical Facilities	<ul style="list-style-type: none"> • The college has very good physical infrastructure for teaching • The college has good indoor facilities for sports and co-curricular activities.
2.4.2. Maintenance of Infrastructure	<ul style="list-style-type: none"> • Maintenance of infrastructure is very good. • The heads of departments ensure maintenance of laboratories etc. • Maintenance contracts are signed for costly equipments.
2.4.3. Library as a learning Resource	<ul style="list-style-type: none"> • The college maintains a very good library and its functioning is fully computerized. • About Rs. 12 Lacs have been spent on books and journals in the last five years. • Entry to the library as also issue and return of books is through smart cards. • Book bank facility is available to the students.
2.4.4. ICT as Learning Resources	<ul style="list-style-type: none"> • College campus has optical fiber based LAN and Wi-Fi facility. • The college has good number of PC's, Servers and relevant software. • ICT facilities are available to the students and teachers free of cost.
2.4.5. Other facilities	<ul style="list-style-type: none"> • The college has provision to provide first aid facilities in all the departments. • The college has a gymkhana with indoor games and fitness facilities. • Counseling and Placement Cells may be further strengthened.
2.4.6. Best practices in the development of Infrastructure and learning resources	<ul style="list-style-type: none"> • Video conferencing facility is available. • Smart Cards are used by students and faculty members for entry to the campus. • Maintenance of infrastructure is very good.

R. Y. Sawane



2.5 Student Support and Progression	
2.5.1. Student Progression	<ul style="list-style-type: none">• Some academic distinctions have been achieved by the students.• Many students are going in for higher studies.• Employment and counseling cells may be further strengthened.
2.5.2. Student Support	<ul style="list-style-type: none">• The college publishes its updated prospectus and College magazine every year. Website is also updated regularly.• Group Insurance scheme is available for the students.• Financial support for the needy may be ensured.• Women development cell may be made more active.
2.5.3. Student Activities	<ul style="list-style-type: none">• Students are participating mainly in indoor sports and co-curricular activities.• Student feedback on syllabi is obtained from outgoing students only.• Alumni association of the college may be activated.
2.5.4. Best practices in Student Support and Progression (if any):	<ul style="list-style-type: none">• Mentor system for student counseling is in place.• Student visits to industry and research institutes are regularly organized.• Endowment Scholarships have been instituted to encourage brilliant students and recently alumni association has also added to this activity.
2.6 Governance and Leadership	
2.6.1. Institutional Vision and Leadership	<ul style="list-style-type: none">• The vision of the institution is well defined.• Academic leadership is provided by the Principal as also faculty members.• The management is proactive and encourages various developmental activities in the college.
2.6.2. Organizational Arrangements	<ul style="list-style-type: none">• The college management is very well organized.• A number of Committees have been constituted to decentralize the decision making.• Quality Advisory Committee has been constituted along with IQAC.

<p>2.6.3. Strategy Development and Deployment:</p>	<ul style="list-style-type: none"> • Strategic decisions are taken by LMC, QAC and IQAC. • A few interdepartmental activities are organized to provide interdisciplinary knowledge. • Various important academic activities are planned well in advance.
<p>2.6.4. Human Resource Management</p>	<ul style="list-style-type: none"> • Teacher's performance is evaluated through self-appraisal and student evaluation once in two years. • Faculty is provided with ICT facilities. • More teachers need to be encouraged to improve their qualifications and soft skills.
<p>2.6.5. Financial Management and Resource Mobilization</p>	<ul style="list-style-type: none"> • The college has obtained some grants for seminars etc. from various funding agencies and the University. • College has started self-financing courses. • The college accounts are regularly audited.
<p>2.6.6. Best practices in Governance and Leadership (if any):</p>	<ul style="list-style-type: none"> • The management takes active interest in all activities of the college. • Powers and responsibilities are delegated for better coordination in the college administration. • The college trust runs some courses on its own.

<p>2.7 Innovative Practices</p>	
<p>2.7.1. Internal Quality Assurance System</p>	<ul style="list-style-type: none"> • The college encourages its students to undertake research projects. • The IQAC may undertake regular internal quality audit of various departments and administration of the college. • Annual Reports of Internal Audit may be compiled and discussed with all concerned for implementation of the recommendations.
<p>2.7.2. Inclusive Practices</p>	<ul style="list-style-type: none"> • Reservation policy of the University is followed in students' admission to give opportunity to weaker sections of the society. • The college provides special facilities for female students and has set up a Women Development Cell.



2.7.3. Stakeholder Relationship	<ul style="list-style-type: none">• The college obtains feedback from various stake holders during meetings etc. informally.• A number of community development and awareness Programmes are organized through NSS and NCC.• The college may create a mechanism for strengthening formal relationship with stake holders.
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Section III: OVERALL ANALYSIS	
1. Institutional Strengths	<ul style="list-style-type: none">• The college is totally devoted to Science education.• The college has very good infrastructural facilities.• The college provides very good ICT facilities to its teachers and students.• The courses being offered by the college are modern and relevant.• Teacher student relations are based on compassion and commitment.• Students are encouraged to undertake research projects.• The relations between management, Principal and faculty are very cordial and healthy.
2. Institutional Weaknesses	<ul style="list-style-type: none">• The number of courses and options are limited.• Number of major research projects obtained by the faculty is very few.• Number of teachers having Ph.D. degree is less considering college being a Science college.• The number of conferences, workshops etc. organized by the college needs to be enhanced.• Participation and achievements in sports and co-curricular activities needs improvement.

R. Lawe



3 Institutional Opportunities	<ul style="list-style-type: none">• The college can develop into a good centre for Science education in the State.• The department of Bio-technology can be further developed to include Bio-informatics and Biochemistry at UG level and also at P.G. level.• College can perform better in the field of research.• The college can become socially more relevant by reaching out to the deprived sections of the society in the neighboring areas.• The college can organize more Seminars / Conferences / Workshops for faculty improvement.
4. Institutional Challenges	<ul style="list-style-type: none">• The college needs to provide more funds for research promotion.• The college may be required to add more P.G. courses.• The college needs to undertake more social extension work as also consultancy.• The college has to formalize a mechanism for feedback from stake holders.• Student support services need to be institutionalized.

R. Bawa

Section IV: Recommendations for Quality enhancement of the Institution

- The college can add more courses like Bio-informatics, Biochemistry, Food Technology, Clinical Nutrition, Microbial and Fermentation Technology etc. at the U.G. level.
- The college can also introduce MCA, M.Sc.(Bio-Technology), Bio-informatics etc. at the P.G. level.
- The college may start more short term vocational and add on courses based on expertise available in the departments.
- The college needs to organize more Seminars, Conferences etc. to give exposure to its faculty and students.
- The faculty may try to get more major research projects from outside funding agencies.
- The college should encourage the students to actively participate in sports and co-curricular activities to enhance achievements in these areas.
- The college may provide facilities like Health Centre and improve the functioning of other student oriented services.
- Alumni Association has to be made more active and participative in college development.
- The college may setup a formal mechanism to obtain feedback from various stake holders and analysis of the same for further development.
- The college may provide hostel facilities for male and female students.

I agree with the observations of the Peer Team as mentioned in this report.

Date: 23rd January, 2010.
Place: Thane



M. K. Pejaver
23-1-10
(Dr. Mrs. M. K. Pejaver)
Principal
Signature of the Head of the Institution
Principal
B. N. Bandodkar College of Science
Thane (W) - 400 801.

Seal of the Institution

Signatures of the Peer Team Members:

Name of Peer Team member	Designation
Prof. R.S. Bawa	Chairman
Dr. Udayan Chandra Sarkar	Member Coordinator
Prof. D. Chandra Shekhara Reddy	Member

Signature with date
R. Bawa
23-1-2010

Udayan Chandra Sarkar
23.01.2010

Prof. D. Chandra Shekhara Reddy
23/1/2010

Place: B. N. Bandodkar College of Science, Thane, Maharashtra
Date: 23rd January, 2010.

NAAC - for Quality and Excellence in Higher Education

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Annexure – III

Statement of Accounts for 2013 – 14

B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 13 TO 31st MARCH 2014

Annexure – III

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciation on Furniture & Computers	1,509,643.93	Interest on Saving Account	173,275.00
EXPENDITURE ON OBJECT OF TRUST		GRANTS	
Educational	96,755,199.00	Salary Grant	88,805,665.00
		INCOME FROM OTHER SOURCES	
		Fees From Students	4,877,206.00
		Sundries	2,108,278.00
			-
		INCOME & EXPENDITURE A/C	2,300,418.93
	98,264,842.93		98,264,842.93

M. S. J. J.

Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane

21 JUL 2014



Verified & Found Correct

[Signature]

Chartered Accountant

B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2014

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	838,200.00	Furniture & fixture (Schedule "K")	12,372,344.25
Loans: (Schedule "B")	47,249,952.75	Computer & Machinery (Schedule "L")	965,052.09
University Fee Refundable (Schedule "C")	136,605.00	Deposits (Schedule "M")	106,635.00
Capital Grant from UGC/University : (Schedule "D")	11,921,942.89	University Fee Receivable (Schedule "N")	47,014.00
Advance Refundable (Schedule "E")	-	Advances to Staff (Schedule "O")	10,000.00
Government Scholarships Freeships : (Schedule "F")	399,294.00	Advances (Schedule "P")	126,292.00
Miscellaneous Deposits : (Schedule "G")	77,369.00	Cash at Bank (Schedule "Q")	7,207,168.89
Deposits from Students : (Schedule "H")	809,650.00	Cash in Hand (Schedule "R")	219,841.67
Univ. Bills Payable To Asst. / Servents (Schedule "I")	30,069.00	Income & Expenditure Account	
Student Welfare Fund Account (Schedule "J")	38,052.02	Opening Balance	38,146,367.83
		Add: Deficit during the year	2,300,418.93
		Less: Surplus during the year	-
			40,446,786.76
	61,501,134.66		61,501,134.66

Muliyil
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane
 21 JUL 2014



Verified & Found Correct
[Signature]
 Chartered Accountant



B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
RECEIPTS AND PAYMENTS ACCOUNT FOR THE PERIOD 1st APR 13 TO 31st MARCH 2014

RECEIPTS	Amt. Rs.	PAYMENTS	Amt. Rs.
Opening Balance			
Cash in hand	152,647.67	<u>Salaries</u>	
Cash at Bank	2,349,429.89	Basic Salary	58,437,207.00
		Dearness Allowance	20,408,304.00
State Grant - Salary	88,805,665.00	Other Allowances	8,942,259.00
		College Contribution to Provident Fund	
Fees & Fines from Students	4,021,911.00	College Contribution to Pension Fund	
College Library		College Contribution to Gratiuity Fund	
Fees Collected on behalf of University	686,065.00	Rent Rates Taxes on College Buildings	139,796.00
<u>Other Miscellaneous receipts for the Maintenance of College</u>		Contribution to Maintenance & Repairs of College Building	256,649.00
Fees for extra curricular activities		College Library	1,90,912
Any other miscellaneous receipts	9,284,191.00	Lib. Periodicals	1,09,878
Gymkhana receipts	168,800.00	Binding	945
Equipment Grant			301,735.00
		Ordinary Repairs	234,034.00
Freeships and Prizes	5,903,843.00	Current Laboratory Expenses	1,238,695.00
Loan from Management	917,255.00	Miscellaneous Expenses	9,084,879.00
<u>Subscriptions, Donations and contributions towards the Non Recurring Expenditure</u>		Furniture & Apparatus	1,028,434.00
UGC Grant for Equipment	5,557,994.00	Payments on accounts of Scholarships, Freeships and Prizes	5,987,430.00
UGC grants for library books		Loan Repaid to Management	409,742.00
UGC recurring grants	431,250.00	Fees Paid to University	611,315.00
UGC Seminar Grant		Other Indirect or Non Recurring Payments	3,771,562.00
		Closing Balance	
		Cash in hand	219,841.67
		Cash at Bank	7,207,168.89
	118,279,051.56		118,279,051.56

Mulejaver
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane

21 JUL 2014



Verified & Found Correct

[Signature]

Chartered Accountant

B.N. Bandodkar College Of Science (Bsc-IT)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

INCOME & EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 13 TO 31st MARCH 2014

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciaton on Movable Properties	970,618.86	Interest on Saving Account	513,000.00
		INCOME FROM OTHER SOURCES	
EXPENDITURE ON OBJECT OF TRUST		Fees From Students	23,414,434.00
Educational	14,555,559.66	Sundries	1,306,889.00
INCOME & EXPENDITURE A/C	9,708,144.48		
	25,234,323.00		25,234,323.00

M. J. J. J.

Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane



Verified & Found Correct

M. J. J. J.

Chartered Accountant

21 JUL 2014



B.N. Bandodkar College Of Science (Bsc-IT)
187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2014

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	82,100.00	Furniture & fixture (Schedule "F")	5,413,849.15
Deposits from Students : (Schedule "B")	636,050.00	Computer & Machinery (Schedule "G")	3,254,405.35
Univ. Bills Payable To Asst. / Servents (Schedule "C")	30,861.00	Advances (Schedule "H")	45,854,385.00
Advance Recoverable (Schedule "D")	-	University Fee Recoverable (Schedule "I")	37,670.00
University Fee Refundable (Schedule "E")	263,250.00	Cash at Bank (Schedule "J")	3,270,986.28
		Cash in Hand (Schedule "K")	75,862.00
Income & Expenditure Account			
Opening Balance	47,186,752.30		
Add : Surplus during the year	<u>9,708,144.48</u>		
	56,894,896.78		
	57,907,157.78		57,907,157.78

M. V. Bhalerao

Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane

21 JUL 2014



Verified & Found Correct

M. V. Bhalerao

Chartered Accountant

Annexure - III

Statement of Accounts for 2012 - 13

B.N. Bandodkar College Of Science (Senior)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 12 TO 31st MARCH 2013

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciaton on Furniture & Computers	1,297,847.36	Interest on Saving Account	120,428.00
EXPENDITURE ON OBJECT OF TRUST		GRANTS	
Educational	72,025,261.00	Salary Grant	63,408,293.00
		INCOME FROM OTHER SOURCES	
		Fees From Students	3,365,140.00
		Sundries	2,280,912.44
		Depreciation on Assets acquired from capital grants wrongly debited to income & expenditure a/c in earlier years now credited & debited to respective capital grant accounts	57,577.53
		INCOME & EXPENDITURE A/C	4,090,757.39
	73,323,108.36		73,323,108.36

Annexure - III

Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane

30 JUL 2013



Verified & Found Correct

Chartered Accountant

B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2013

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	765,700.00	Furniture & fixture (Schedule "L")	10,173,636.16
Loans: (Schedule "B")	42,567,885.75	Computer & Machinery (Schedule "M")	1,093,815.11
University Fee Refundable (Schedule "C")	92,135.00	Advance Recoverable (Schedule "N")	-
Capital Grant from UGC/University : (Schedule "D")	7,344,017.89	Deposits (Schedule "O")	106,635.00
College Exam Fee Account : (Schedule "E")	-	University Fee Receivable (Schedule "P")	71,294.00
Advance Refundable (Schedule "F")	-	Advances (Schedule "Q")	33,000.00
Government Scholarships Freeships : (Schedule "G")	557,741.00	Government Scholarships Freeships Recoverable: (Schedule "R")	74,860.00
Miscellaneous Deposits : (Schedule "H")	82,214.00	Cash at Bank (Schedule "S")	2,349,429.89
Deposits from Students : (Schedule "I")	743,000.00	Cash in Hand (Schedule "T")	152,647.67
Univ. Bills Payable To Asst. / Servents (Schedule "J")	7,250.00	Income & Expenditure Account	
Student Welfare Fund Account (Schedule "K")	41,742.02	Opening Balance	34,055,610.44
		Add: Deficit during the year	4,090,757.39
		Less: Surplus during the year	-
			38,146,367.83
	52,201,685.66		52,201,685.66

M. J. J. J.
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane

30 JUL 2013



Verified & Found Correct

M. J. J. J.
 Chartered Accountant

B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
RECEIPTS AND PAYMENTS ACCOUNT FOR THE PERIOD 1st APR 12 TO 31st MARCH 2013

RECEIPTS	Amt. Rs.	PAYMENTS	Amt. Rs.
Opening Balance			
Cash in hand	392,015.67	Salaries	
Cash at Bank	2,807,431.89	Basic Salary	34,919,948.00
State Grant - Salary	63,408,293.00	Dearness Allowance	18,921,394.00
		Other Allowances	9,854,426.00
		College Contribution to Provident Fund	
		College Contribution to Pension Fund	
		College Contribution to Gratiuity Fund	
Fees & Fines from Students	2,739,212.00	Rent Rates Taxes on College Buildings	70,398.00
College Library	1,840.00	Contribution to Maintenance & Repairs of College Building	256,457.00
Fees Collected on behalf of University	326,160.00	College Library	1,70,968
Other Miscellaneous receipts for the Maintenance of College		Lib. Periodicals	1,59,020
Fees for extra curricular activities		Binding	329,988.00
Any other miscellaneous receipts	5,314,567.00	Ordinary Repairs	139,260.00
Gymkhana receipts	128,025.00	Current Laboratory Expenses	1,179,096.00
Equipment Grant	1,761,607.00	Miscellaneous Expenses	8,452,805.00
Freeships and Prizes	3,156,871.00	Furniture & Apparatus	595,678.00
Loan from Management	1,800,524.00	Payments on accounts of Scholarships, Freeships and Prizes	3,200,328.00
Subscriptions, Donations and contributions towards the Non Recurring Expenditure		Loan Repaid to Management	
UGC Grant for Equipment		Fees Paid to University	324,520.00
UGC grants for library books		Other Indirect or Non Recurring Payments	1,455,262.00
UGC recurring grants	12,400.00		
UGC Seminar Grant	352,691.00		
		Closing Balance	
		Cash in hand	152,647.67
		Cash at Bank	2,349,429.89
	82,201,637.56		82,201,637.56

M. J. J. J.
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane

30 JUL 2013



Verified & Found Correct

[Signature]

Chartered Accountant

B.N. Bandodkar College Of Science (Bsc-IT)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

INCOME & EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 12 TO 31st MARCH 2013

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciaton on Movable Properties	978,760.87	Interest on Saving Account	360,244.00
		INCOME FROM OTHER SOURCES	
EXPENDITURE ON OBJECT OF TRUST		Fees From Students	20,909,795.00
Educational	10,677,955.41	Sundries	1,426,792.00
INCOME & EXPENDITURE A/C	11,040,114.72		
	22,696,831.00		22,696,831.00

M. J. Jovan
Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane

30 JUL 2013



Verified & Found Correct

[Signature]

Chartered Accountant

B.N. Bandodkar College Of Science (Bsc-IT)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2013

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	67,100.00	Furniture & fixture (Schedule "F")	5,328,109.42
Deposits from Students : (Schedule "B")	579,450.00	Computer & Machinery (Schedule "G")	3,401,543.94
Univ. Bills Payable To Asst. / Servents (Schedule "C")	52,065.00	Advances (Schedule "H")	37,237,294.00
Advance Recoverable (Schedule "D")	-	University Fee Recoverable (Schedule "I")	40,170.00
University Fee Refundable (Schedule "E")	233,905.00	Cash at Bank (Schedule "J")	2,034,439.94
		Cash in Hand (Schedule "K")	77,715.00
Income & Expenditure Account			
Opening Balance	36,146,637.58		
Add : Surplus during the year	<u>11,040,114.72</u>		
	✓ 47,186,752.30		
	48,119,272.30		48,119,272.30

Mubejanwar
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane



Verified & Found Correct

[Signature]

Chartered Accountant

30 JUL 2013

Annexure – III

Statement of Accounts for 2011 – 12

B.N. Bandodkar College Of Science (Senior)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 11 TO 31st MARCH 2012

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
<u>DEPRECIATION</u>		<u>INTEREST</u>	
Depreciaton on Furniture & Computers	1,459,703.88	Interest on Saving Account	145,667.00
<u>EXPENDITURE ON OBJECT OF TRUST</u>		<u>GRANTS</u>	
Educational	63,974,808.00	Salary Grant	58,357,374.00
		<u>INCOME FROM OTHER SOURCES</u>	
		Fees From Students	2,952,718.00
		Sundries	768,795.00
		INCOME & EXPENDITURE A/C	3,209,957.88
	65,434,511.88		65,434,511.88

Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane



Verified & Found Correct

Chartered Accountant

30 JUL 2012

B.N. Bandodkar College Of Science (Senior)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

BALANCE SHEET AS AT 31ST MARCH 2012

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	656,750.00	Furniture & fixture (Schedule "L")	10,696,082.64
Loans: (Schedule "B")	39,816,493.75	Computer & Machinery (Schedule "M")	1,035,429.09
University Fee Refundable (Schedule "C")	75,525.00	Advance Recoverable (Schedule "N")	8,800.00
Capital Grant from UGC/University : (Schedule "D")	6,661,178.52	Deposits (Schedule "O")	106,635.00
College Exam Fee Account : (Schedule "E")	499,482.44	University Fee Receivable (Schedule "P")	101,414.00
Advance Refundable (Schedule "F")	-	Advances (Schedule "Q")	65,699.00
Government Scholarships Freeships : (Schedule "G")	585,798.00	Government Scholarships Freeships Recoverable: (Schedule "R")	59,460.00
Miscellaneous Deposits : (Schedule "H")	153,714.00	Cash at Bank (Schedule "S")	2,807,431.89
Deposits from Students : (Schedule "I")	723,950.00	Cash in Hand (Schedule "T")	392,015.67
Univ. Bills Payable To Asst. / Servents (Schedule "J")	113,944.00	Income & Expenditure Account	
Student Welfare Fund Account (Schedule "K")	41,742.02	Opening Balance	30,845,652.56
		Add: Deficit during the year	3,209,957.88
		Less: Surplus during the year	-
			34,055,610.44
	49,328,577.73		49,328,577.73

M. J. J. J.

Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane

30 JUL 2012



Verified & Found Correct

M. J. J. J.

Chartered Accountant

B.N. Bandodkar College Of Science (Senior)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601-

RECEIPTS AND PAYMENTS ACCOUNT FOR THE PERIOD 1st APR 11 TO 31st MARCH 2012

RECEIPTS	Amt. Rs.	PAYMENTS	Amt. Rs.
Opening Balance			
Cash in hand	142,613.67	<u>Salaries</u>	
Cash at Bank	4,019,832.89	Basic Salary	31,604,172.00
State Grant - Salary	58,357,374.00	Dearness Allowance	14,744,508.00
		Other Allowances	10,402,742.00
		College Contribution to Provident Fund	
		College Contribution to Pension Fund	
		College Contribution to Gratiuity Fund	
Fees & Fines from Students	2,670,173.00	Rent Rates Taxes on College Buildings	98,813.00
College Library	1,840.00	College Building Repairs & Depreciation	252,529.00
Fees Collected on behalf of University	304,925.00	College Library	1,14,373
<u>Other Miscellaneous receipts for the Maintenance of College</u>		Lib. Periodicals	1,90,494
Fees for extra curricular activities		Binding	1,470
Any other miscellaneous receipts	3,263,119.00		306,337.00
Gymkhana receipts	135,225.00	Ordinary Repairs	111,429.00
Equipment Grant	253,328.00	Current Laboratory Expenses	769,273.00
		Miscellaneous Expenses	7,159,327.00
Freeships and Prizes	3,680,911.00	Furniture & Apparatus	929,267.00
Loan from Management	2,903,827.00	Payments on accounts of Scholarships, Freeships and Prizes	3,424,449.00
<u>Subscriptions, Donations and contributions towards the Non Recurring Expenditure</u>		Loan Repaid to Management	640,000.00
UGC Grant for Equipment	1,519,387.00	Fees Paid to University	369,450.00
UGC grants for library books		Other Indirect or Non Recurring Payments	3,770,812.00
UGC recurring grants	520,000.00		
UGC grant from others	10,000.00	<u>Closing Balance</u>	
		Cash in hand	392,015.67
		Cash at Bank	2,807,431.89
	77,782,555.56		77,782,555.56

M. J. J. J.
Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane

30 JUL 2012



Verified & Found Correct

M. J. J. J.

Chartered Accountant

B.N. Bandodkar College Of Science (Bsc-IT)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
INCOME & EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 10 TO 31st MARCH 2012

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciaton on Movable Properties	930,523.80	Interest on Saving Account	334,749.00
		INCOME FROM OTHER SOURCES	
EXPENDITURE ON OBJECT OF TRUST		Fees From Students	17,789,153.00
Educational	9,829,688.00	Sundries	1,290,144.00
INCOME & EXPENDITURE A/C	8,653,834.20		
	19,414,046.00		19,414,046.00

M. J. J. J.

Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane

30 JUL 2012



Verified & Found Correct

S. V. Bale

Chartered Accountant

B.N. Bandodkar College Of Science (Bsc-IT)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2012

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	44,100.00	Furniture & fixture (Schedule "F")	5,419,545.97
Deposits from Students : (Schedule "B")	542,400.00	Computer & Machinery (Schedule "G")	2,861,934.26
Univ. Bills Payable To Asst. / Servents (Schedule "C")	31,910.00	Advances (Schedule "H")	26,970,899.00
Advance Recoverable (Schedule "D")	-	University Fee Recoverable (Schedule "I")	28,170.00
University Fee Refundable (Schedule "E")	158,375.00	Cash at Bank (Schedule "J")	1,605,858.35
		Cash in Hand (Schedule "K")	37,015.00
Income & Expenditure Account			
Opening Balance	27,492,803.38		
Add : Surplus during the year	<u>8,653,834.20</u>		
	36,146,637.58		
	36,923,422.58		36,923,422.58

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Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane

30 JUL 2012



Verified & Found Correct

[Signature]

Chartered Accountant

Annexure – III

Statement of Accounts for 2010 – 11

B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 10 TO 31st MARCH 2011

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciaton on Furniture & Computers	1,242,130.31	Interest on Saving Account	142,502.00
		GRANTS	
EXPENDITURE ON OBJECT OF TRUST		Salary Grant	45,927,678.00
Educational	54,316,623.00	INCOME FROM OTHER SOURCES	
		Fees From Students	2,890,245.00
		Sundries	1,269,760.60
		INCOME & EXPENDITURE A/C	5,328,567.71
	55,558,753.31		55,558,753.31

Annexure – III

Mulejover
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane



Verified & Found Correct

 Chartered Accountant

27 JUL 2011

B.N. Bandodkar College Of Science (Senior)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2011

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	584,650.00	Furniture & fixture (Schedule "L")	10,034,828.25
Loans: (Schedule "B")	36,772,666.75	Computer & Machinery (Schedule "M")	450,277.36
University Fee Refundable (Schedule "C")	107,465.00	Advance Recoverable (Schedule "N")	6,730.00
Capital Grant from UGC/University : (Schedule "D")	6,433,757.52	Deposits (Schedule "O")	106,635.00
College Exam Fee Account : (Schedule "E")	542,724.44	University Fee Receivable (Schedule "P")	67,079.00
Advance Refundable (Schedule "F")	-	Advances (Schedule "Q")	44,600.00
Government Scholarships Freeships : (Schedule "G")	330,288.00	Capital Grant from UGC/University Recoverable: (Schedule "R")	-
Miscellaneous Deposits : (Schedule "H")	149,034.00	Government Scholarships Freeships Recoverable: (Schedule "S")	60,412.00
Deposits from Students : (Schedule "I")	701,300.00	Cash at Bank (Schedule "T")	4,019,832.89
Univ. Bills Payable To Asst. / Servents (Schedule "J")	115,033.00	Cash in Hand (Schedule "U")	142,613.67
Student Welfare Fund Account (Schedule "K")	41,742.02	Income & Expenditure Account	
		Opening Balance	25,517,084.85
		Add: Deficit during the year	5,328,567.71
		Less: Surplus during the year	-
			30,845,652.56
	45,778,660.73		45,778,660.73

M. J. J. J.
 Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane



Verified & Found Correct

M. J. J. J.
 Chartered Accountant

27 JUL 2011

B.N. Bandodkar College Of Science (Senior)

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

RECEIPTS AND PAYMENTS ACCOUNT FOR THE PERIOD 1st APR 10 TO 31st MARCH 2011

RECEIPTS	Amt. Rs.	PAYMENTS	Amt. Rs.
Opening Balance			
Cash in hand	86,019.67	<u>Salaries</u>	
Cash at Bank	6,339,581.29	Basic Salary	27,008,046.00
State Grant - Salary	45,927,678.00	Dearness Allowance	11,713,943.00
		Other Allowances	8,836,002.00
Fees & Fines from Students	2,579,982.00	College Contribution to Provident Fund	
		College Contribution to Pension Fund	
Fees Collected on behalf of University	451,095.00	College Contribution to Gratiuity Fund	
<u>Other Miscellaneous receipts for the Maintenance of College</u>		Rent Rates Taxes on College Buildings	103,680.00
Fees for extra curricular activities		College Building Repairs & Depreciation	279,422.00
Any other miscellaneous receipts	3,621,197.60	College Library	1,26,836
Gymkhana receipts	177,545.00	Lib. Periodicals	1,27,894
Equipment Grant	2,719.00	Binding	6,388
			261,118.00
Freeships and Prizes	4,449,093.00	Ordinary Repairs	113,816.00
Loan from Management	3,210,254.00	Current Laboratory Expenses	1,138,969.00
<u>Subscriptions, Donations and contributions towards the Non Recurring Expenditure</u>		Miscellaneous Expenses	6,463,587.00
UGC Grant for Equipment	1,000,000.00	Furniture & Appartus	630,916.00
UGC grants for library books		Payments on accounts of Scholarships, Freeships and Prizes	5,749,220.00
UGC recurring grants	2,343,730.00	Loan Repaid to Management	577,892.00
UGC grant from others	73,320.00	Fees Paid to University	366,882.00
		Other Indirect or Non Recurring Payments	2,856,275.00
		Closing Balance	
		Cash in hand	142,613.67
		Cash at Bank	4,019,832.89
	70,262,214.56		70,262,214.56

M. V. Mankar
Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane



Verified & Found Correct

M. V. Mankar
Chartered Accountant

27 JUL 2011

**B.N. Bandodkar College Of Science (Bsc-IT)**

187- Chendani bunder road, Thane College Campus Thane (w) - 400 601

INCOME & EXPENDITURE ACCOUNT FOR THE PERIOD 1st APR 10 TO 31st MARCH 2011

EXPENDITURE	Amt. Rs.	INCOME	Amt. Rs.
DEPRECIATION		INTEREST	
Depreciaton on Movable Properties	928,807.20	Interest on Saving Account	301,373.00
		INCOME FROM OTHER SOURCES	
EXPENDITURE ON OBJECT OF TRUST		Fees From Students	17,358,180.00
Educational	8,741,355.00	Sundries	1,607,208.00
INCOME & EXPENDITURE A/C	9,596,598.80		
	19,266,761.00		19,266,761.00

M. J. J. J.
Principal
B.N. BANDODKAR COLLEGE OF SCIENCE
Thane



Verified & Found Correct

Chartered Accountant

27 JUL 2011

B.N. Bandodkar College Of Science (Bsc-IT)
 187- Chendani bunder road, Thane College Campus Thane (w) - 400 601
BALANCE SHEET AS AT 31ST MARCH 2011

LIABILITIES	Amt. Rs.	ASSETS	Amt. Rs.
Reserve Fund (Schedule "A")	36,100.00	Furniture & fixture (Schedule "F")	5,135,975.09
Deposits from Students : (Schedule "B")	513,450.00	Computer & Machinery (Schedule "G")	3,113,673.94
Univ. Bills Payable To Asst. / Servents (Schedule "C")	19,401.00	Advances (Schedule "H")	17,874,391.00
Advance Recoverable (Schedule "D")	-	University Fee Recoverable (Schedule "I")	15,920.00
University Fee Refundable (Schedule "E")	116,125.00	Cash at Bank (Schedule "J")	2,034,314.35
		Cash in Hand (Schedule "K")	3,605.00
Income & Expenditure Account			
Opening Balance	17,896,204.58		
Add : Surplus during the year	<u>9,596,598.80</u>		
	27,492,803.38		
	28,177,879.38		28,177,879.38

M. J. J. J.

Principal
 B.N. BANDODKAR COLLEGE OF SCIENCE
 Thane



Verified & Found Correct

S. V. KALE

Chartered Accountant

27 JUL 2011



Principal Dr.(Mrs.) M. K. Pejaver receiving
NAAC 'A' Grade Certificate



Principal Dr.(Mrs.) M. K. Pejaver receiving
Best College Certificate from University of Mumbai



Dr. V.N. Bedekar



Receiving 2nd prize for "Jagar Janivancha" Campaign
from Government of Maharashtra



Our student receiving prize from
Vice Chancellor University of Mumbai