Time : 2 hrs. **CODE - SULPHUR** Marks : 50

N.B 1) **All questions are compulsory.**
2) **Figures to the right indicate full marks.**
3) **Graph papers, log tables will be provided on request.**

Q.1 A) **Explain the following terms with on example** 6
i) discrete variable
ii) Continuous variable
iii) class marks
iv) Attribute

B) **Tabulate the following information.** 6
The numbers of workers in a large factor in 1999 was 540 of which 30% were females and rest males. In 2000, the strength of the workers increased by 100 females and 200 males In 2001, the total number of workers increased by 25% over its value in 2000, while the increase in the number of male workers was 16 more than increase in the number of female workers.

OR

A) What is classification ? What are the bases of classification ? What are the objectives of classification. 6

B) 2000 candidates appeared for a competitive examination and of these 600 were successful, 350 had attended a coaching class and of these 200 came out successful. Obtain yules coefficient and comment on your findings.

Q.2 A) Give all the steps in construction of pie diagram and subdivided bar diagram 6

B) Draw less than ogives for the following data and hence estimate median. 6

Class interval	:	25-30	30-35	35-40	40-45	45-50
Frequency	:	10	13	18	21	34
Class interval	:	50-55	55-60	60-65	65-70	
Frequency	:	28	20	11	8	

OR

Q.2 A) Explain construction of histogram, and how to estimate mode from histogram. 6

B) Draw multiple bar diagram for the following data. 6

Period	**Net Worth (Rs in crores)**	**Net Profit (Rs in crores)**
2001 - 2002	7.5	0.6
2002 - 2003	9.7	3.1
2003 - 2004	14.5	6.9
2004 - 2005	23.7	8.2

Q.3 A) What is central tendency ? What are its measures ? What are the requirements of good measure ? **6**

B) Calculate mean and mode for the following data.
55, 56, 45, 46, 61, 58, 57, 55, 47, 55, 56, 55. **6**

OR

Q.3 A) Define the following i) Combined arithmetic mean ii) Geometric mean iii) Harmonic mean **6**

B) The average weight of a group of 25 boys was found to be 78.4 pounds. It was later discovered that one weight was misread as 69 pounds instead of the correct value 96 pounds. Calculate the correct arithmetic mean. Also calculate mean leaving out the incorrect value. **6**

Q.4 A) Explain primary and secondary data. Explain any one method of collection of primary data. What are the sources of secondary. **7**

B) The mean weight of 150 students in a certain class is 60 kg. The mean weight of boys in the class is 70kg and that of girls is 55kg. Find number of boys and girls in the class. Also find percentage of boy to girls. **7**

OR

Q.4 A) Calculate median and qualities for the following data. **7**

X :	0 - 4	4 - 8	8 - 12	12 - 16	16 - 20
F :	21	8	7	3	1

B) The following bivariate frequency table gives distribution of 100 students according to their height and weigh. **7**

Weight in Lb Height in inches	91-100	101-100	111-120	121-130
56-60	3	12	15	7
61-65	1	20	14	5
66-70	-	13	7	3

Construct marginal frequency tables for height and weight separately. additional frequency distribution for the height glass 61-65 inches.

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