

**Std. XI Information Technology –Commerce (99)**  
**Scope and Limitation**

S. No.	Topic/Unit	Sub-Unit	Lectures
1	<b>Introduction to Information Technology</b>	<ul style="list-style-type: none"> <li>• Definition of Information Technology: Introduction, Information Systems, Software and Data.</li> <li>• IT in Business and Industry, IT at Home and play, IT in education and Training IT in Science and Engineering.</li> <li>• Computers in Hiding</li> </ul>	<b>10</b>
2	<b>Office Suite</b>	<ul style="list-style-type: none"> <li>• Word Processor MS Word/Lotus WordPro and its main features: Save and Save As, Page Setup-Margins, Orientation and Paper Size, Print Preview and various Print Options, Undo, Cut, Copy, Paste, Find and Replace, Formatting text using Font, Bold Italic, Underline and Paragraph Alignments, Spellings and Grammar, Mail Merge, Insertion of Tables, Adding/Deleting/Merging/Splitting of Rows/ Columns/Cells.</li> <li>• Spreadsheets MS Excel/ Lotus 123 and its main features Concept of Spreadsheet, Worksheets and Workbooks. Main Features of Excel/Lotus 123 : Save and Save As, Setting Print Area, Page Setup- Orientation, Scaling, Paper Size, Margins, Header and Footers, Undo, Cut, Copy, Paste, Various Fill options, Find and Replace options, Normal and Page Break Views, Print Preview, Various Print Options, Formatting Cell Data –Type, Alignment, Font and Border, Sorting Data, Introduction to Formulae and their use.</li> <li>• Presentations MS PowerPoint/Lotus Freelance Graphics, basic Concepts of a presentation, Creation of Presentations manually and using AutoContent Wizards, Save and Open operations, Inserting and deleting slides, Slide Design Templates, Slide Background and colour schemes, Object and Image insertion, Editing Inserted Images, List and WordArt Insertion, Different Views of PowerPoint, Slideshow, Slide Transition Effects, Animation schemes and Custom Animation. Setting up, printing and viewing Presentations.</li> <li>• Study of an Indian Language Word Processor such as IndiaPage or iLeap</li> </ul>	<b>50</b>

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3	<b>Multimedia</b>	<ul style="list-style-type: none"> <li>• Multimedia-Definition, CD-ROM, Uses of Multimedia in business, education, public places, Virtual Reality</li> <li>• Presentation Tools: Microsoft PowerPoint, Time based Multimedia Authoring tools, Macromedia Director</li> <li>• Images: Creating Still Images, Bitmaps, Capturing and Editing images, Vector Drawing, Comparison to bitmaps, Rendering, Color, File Formats, Introduction to the basic features of Microsoft Paint,</li> <li>• Animation: Principles, Techniques, Cel Animation, keyframes and tweening, Computer Animation, Kinematics and Morphing, Animation File Formats</li> <li>• Digital Video, -Compression MPEG, DVI</li> <li>• Sounds, MIDI, Digital Audio, sampling rate and sample size, Audio File formats.</li> </ul>	25
4	<b>Web Browsers, E-mail Clients and Messenger Utilities</b>	<ul style="list-style-type: none"> <li>• A brief account of the early Internet,</li> <li>• Protocols, the TCP/IP protocol (protocol structure need not be discussed, only features and applications)</li> <li>• The Hypertext Transfer Protocol(http)</li> <li>• The World Wide Web, Role of Web Servers,</li> <li>• The Client Computer, Web Browsers and their use,</li> <li>• Popular Web Browsers, Internet Explorer, Netscape and Mozilla</li> <li>• Internet access without using a traditional Computer-using Mobile Phones-GPRS and WAP protocols</li> <li>• E-Mail Servers and Protocols: SMTP, POP, IMAP, simple web based Mail</li> <li>• E-mail Clients, Outlook, Outlook Express and Eudora, Web Based Mail Access using Browser</li> <li>• Messenger Services and Clients and their features; Yahoo!, MSN and AOL Messengers</li> </ul>	30

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5	<b>File and Disc Utilities</b>	<ul style="list-style-type: none"> <li>• Concept of Files and directories</li> <li>• File Archival, compression and encryption utilities.</li> <li>• Disc utilities related to error recovery in the physical sector of disks as well as file system errors. Disk De-fragmentation utilities.</li> <li>• Anti-Virus, Firewall and Anti-Spy ware Utilities.</li> </ul>	15
6	<b>Basic Database Concepts</b>	<ul style="list-style-type: none"> <li>• Basic Concepts of database and RDBMS</li> <li>• Shortcomings of file management system,</li> <li>• Difference between a database and a database system,</li> <li>• Benefits of a database approach, Data independence,</li> <li>• The database management system,</li> <li>• The database administrator</li> <li>• Database users</li> </ul>	22
7	<b>Overview of Accounting Software Package</b>	<ul style="list-style-type: none"> <li>• Advantage of computerized accounting</li> <li>• Introduction to Tally and its features.</li> </ul>	8

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8	HTML	<ul style="list-style-type: none"> <li>• HTML: Use as a Web Publishing Language, Features, Properties and Limitations.</li> <li>• HTML Basic Tags and Attributes: The &lt;HTML&gt; &lt;HEAD&gt; &lt;BODY&gt; and &lt;TITLE&gt; tags.</li> <li>• The Paragraph &lt;P&gt; and Heading tags &lt;H1&gt; to &lt;H6&gt; and the align attribute and its values. The HTML Comment tag &lt;!--...--&gt;</li> <li>• Ordered Lists: The &lt;OL&gt; and &lt;LI&gt; tags the TYPE and VALUE attribute of the &lt;OL&gt; tag Unordered lists: The &lt;UL&gt; and &lt;LI&gt; tags the TYPE VALUE attribute of the &lt;UL&gt; tag. Nested Lists</li> <li>• Creating Hyperlinks in HTML using the Anchor &lt;A&gt; tag and the HREF attribute. Relative and absolute pats in hyperlinks. Inking within the same page by using the NAME attribute (Bookmarks). Concept of URL. URL types; http, ftp and news. The mailto function</li> <li>• Physical Style Tags &lt;B&gt;, &lt;I&gt;, &lt;U&gt;, &lt;TT&gt;, &lt;S&gt;, &lt;SUB&gt;, &lt;SUP&gt;, &lt;BIG&gt; and &lt;SMALL&gt;</li> <li>• The HTML &lt;FONT&gt; tag and the FACE, SIZE and COLOR attributes. Specifying alternative fonts. Specifying font color using color name as well as RGB hex color code. Using TEXT, BGCOLOR, LINK, ALINK and VLINK attributes with the &lt;BODY&gt; tag</li> <li>• The Pre-formatting &lt;PRE&gt;, Line Break &lt;BR&gt; and Horizontal line &lt;HR&gt; tags. The WIDTH, SIZE and NOSHADE attributes of the &lt;HR&gt; tag.</li>   <li>• Displaying special characters in HTML; blank, greater than, less than, quote, ampersand, copyright.</li> <li>• The Raster Image format, BMP, GIF and JPG and their features, the HTML &lt;IMG&gt; tag, the SRC, ALIGN, ALT, HEIGHT, WIDTH, BORDER, LOWSRC attributes. Displaying images in a web page, links to images, images used as hyperlinks. The &lt;BODY&gt; BACKGROUND attribute</li> <li>• Tables in HTML. The &lt;TABLE&gt; tag. BORDER, ALIGN, WIDTH and COLOR attributes. The table &lt;CAPTION&gt;, Row&lt;TR&gt;, Cell &lt;TH&gt; and &lt;TD&gt; tags. Cell WIDTH, ALIGN and VALIGN. BORDERCOLOR. Spanning Table Cells using ROWSPAN and COLSPAN. Embedded Tables.</li> <li>• The &lt;MARQUEE&gt; tag and related attributes BEHAVIOR, SCROLLAMOUNT, SCROLLDELAY, DIRECTION.</li> <li>• Java Applets. The &lt;APPLET&gt; and &lt;PARAM&gt; tags and attributes. <ul style="list-style-type: none"> <li>• <b>Glossary/Definition Lists are not in Syllabus</b></li> <li>• All Logical Style Tags such as &lt;BASEFONT&gt; &lt;STRONG&gt; &lt;DIV&gt; etc. are not in Syllabus.</li> </ul> </li> </ul>	40
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**Std. XI Information Technology –Commerce (99)**  
**Scope and Limitation**  
**Practical List**

1. Identification of Computer Systems and understanding LAB setup.
2. Exercise on Windows, Start Menu and Accessories.
3. Creating Documents, page formatting, use of fonts and colour and printing using Word/WordPro
4. Mail merge and envelope printing using Word/WordPro
5. Study of Spreadsheet using Excel/Lotus 123
6. Create simple slides using PowerPoint/Freelance Graphics
7. Study of a Web Browser for browsing different websites
8. Acquisition of e-mail ID on free web-based e-mail servers; sending and receiving emails with and without attachments.
9. Study and use of search engines, and messengers.
10. Downloading and saving Web page content and images as files.
11. Creation of Compressed File Archives ZIP and RAR
12. Study of Disk Management Tools
13. Creating simple database, table, forms and reports using Access.
14. Generating simple queries and verifying results. (Access)
15. Study of TALLY Package (GATEWAY)
16. Create a simple WEB page using basic HTML tags.
17. Creation of WEB page containing graphics and table.
18. Use of Hyperlinks on WEB pages.

**Std. XI Information Technology –Commerce (99)**  
**Scope and Limitation**  
**References and Software List**

**1. Introduction to Information Technology**

**Reference:**

Information Technology The Breaking Wave, Dennis Curtin, Foley, Sen & Morin, TMH Chapter2 (2.1 to 2.9 only)

**2. Office Suite (Microsoft Office 2003/2002/2000 or later or Lotus Smart Suite)**

**Reference:**

Office 2002 in Easy Steps, Dreamtech Press, IDG Books

Lotus SmartSuite Manual/Help Files/Online Help

Access 2002 in Easy Steps, Stephen Copestake, Dreamtech Press, IDG Books (Relevant parts of Chapters 1, 2 and 3)

Help Files of the Indian Language Editor used. (Software)

**Software:**

Microsoft Office 2003/xp/2000 or later with Access/ Lotus Smart Suite

Indian Language Word Processor IndiaPage or iLeap.

**3. Multimedia**

**Reference:**

Multimedia – Making it Work, Tay Vaughan, TMH

(Relevant Sections of Chapters 1, 7, 9, 10, 11 and 12)

Microsoft Paint Help Files

**Software:**

Microsoft Windows Components: **Paint, Photo Editor/Picture Manager** (part of Ms-Office Setup), **Sound Recorder and Media Player 9** or higher.

Winamp 5.05, Real Player 10, Apple QuickTime 6 or higher versions.

**4. Web Browsers, E-mail Clients and Messenger Utilities**

**References:**

Internet-An Introduction CISTems – TMH (Relevant sections of Chapters 1 to 6)

Web Publishing, Monica and Jude D'Souza, TMH

**Software:**

**Microsoft Internet Explorer 6** or higher and **Netscape 7.2** or higher

Yahoo Messenger 6 and MSN Messenger 6.2

## **5. File and Disc Utilities**

### **Reference:**

Computer Concepts, 4<sup>th</sup> Edition, JJ Parsons & D.Oja Thomson Learning (Chapter 10)

### **Software:**

Windows Components Error Checking, Defragmenter and Disk Cleanup

WinRAR 3.40, WinZip 9 or higher.

Any freeware Antivirus Package Such as AVG Anti-Virus 6 Free Edition, or later

## **6. Basic Database Concepts**

### **Reference:**

Concept of Database Management, Pratt and Adamski, Thomson Learning, 3<sup>rd</sup> Ed.

### **Software:**

Microsoft Access 2000 or higher (part of Microsoft Office)

## **7. Overview of Accounting Software Package.**

### **Reference:**

Financial Accounting on Computers using TALLY, Namrata Agarwal, Dreamtech Press.

### **Software:**

Tally Ver. 5.4 or Higher

## **8. Introduction to HTML**

### **Reference:**

Web Publishing, Monica and Jude D'Souza, TMH

Chapters 3 (excluding deprecated tags and Glossary/Definition Lists), 4, 5, (excluding Block alignment and Logical style tags),

Chapter 6(upto Pg. 96 including Image Preview), 7(excluding Embedded Tables)

### **Software:**

Windows component Notepad or any free Text Editor, Internet Explorer 6 or higher and Netscape 7.2 or higher

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**Scope and Limitation**

S. No.	Topic/Unit	Sub-Unit	Lectures
1	Web Publishing	<ul style="list-style-type: none"> <li>• Frames: the &lt;FRAME&gt;, &lt;FRAMESET&gt; and attributes, The anchor tag TARGET attribute, magic target names, Inline frames using &lt;IFRAME&gt; and related attributes.</li> <li>• Image Mapping, Client side Image Maps, the &lt;IMAGE&gt; tag USEMAP attribute, the &lt;MAP&gt; and &lt;AREA&gt; tags and related attributes. Server Side Image maps and map files. The &lt;IMAGE&gt; tag ISMAP attribute. Combining Client Side and Server Side Image mapping.</li> <li>• Forms and Form Objects: The &lt;FORM&gt; tag. Form Methods and Action. Form objects The &lt;INPUT&gt; Tag and related attributes. Text Box, Password, Hidden, Button, Submit, Reset, Checkbox and Radio Objects. The &lt;SELECT&gt;, &lt;OPTION&gt; and &lt;TEXTAREA&gt; tags and related attributes. Scrolling List boxes, Multiple Select Option, the Textarea object.</li> <li>• Inserting Sound and Video: Popular Audio Formats, Linking to an Audio/MIDI file. Adding sound to web-pages using the &lt;EMBED&gt; and &lt;BGSOUND&gt; tags and their related attributes. Video file formats for the web. Adding video using the DYNSTRC attribute for &lt;IMG&gt; and using the &lt;EMBED&gt; tags.</li> <li>• Font Embedding using Microsoft WEFT. Need of Font Embedding, Font Objects and Subsetting Options.</li> <li>• Cross Browser Testing and its importance.</li> <li>• Introduction to CSS. CSS Styles and definitions using the &lt;STYLE&gt; tag. The &lt;LINK&gt; tag and related attributes. Classes and IDs. Contextual Selector, Grouping selectors, Positioning using CSS. 3D Layers, Letter spacing, Text-Align and Decoration.</li> <li>• Web Server. Locating, Directories and File Organisation, Moving Files, Commercial Internet Service, Setting up the Web Server, Windows IIS and UNIX servers.</li> <li>• <b>(Microsoft PWS must be omitted and should not be taught).</b></li> <li>• <b>The examination must not include any question that exclusively deals with elementary HTML already covered in Std. XI</b></li> </ul>	



S. No.	Topic/Unit	Sub-Unit	Lectures
2	<b>Cyber Laws and Ethics</b>	<ul style="list-style-type: none"> <li>• Moral, Ethics, and Law</li> <li>• Need for Ethics Culture. Ethics for – Computer users, Computer professionals, business</li> <li>• Information Service</li> <li>• Code of ethics, ethics guidelines</li> <li>• Introduction to cyber laws:</li> <li>• Information Technology Act of India, 2000 –Definitions, Digital Signature, Electronic Records- Attribution, Acknowledgement and Dispatch.</li> <li>• The Ten Commandments of Computing</li> <li>• Security, Privacy and Control.</li> <li>• Intellectual Property Rights</li> </ul>	
3	<b>E-Commerce</b>	<ul style="list-style-type: none"> <li>• Electronic Commerce-Scope, Definition</li> <li>• Trade Cycle</li> <li>• Electronic markets-Usage, Advantages and Disadvantages, Future</li> <li>• Electronic Data Interchange- Definition, Benefits</li> <li>• Internet Commerce, e-Commerce in Perspective</li> <li>• EDI Security</li> </ul>	
4	<b>Introduction to Networking</b>	<ul style="list-style-type: none"> <li>• Why Network?, Networking Basics, Ethernet, Network Topologies and Cabling Systems</li> <li>• Types of Cabling</li> <li>• Bounded and Wireless networks,</li> <li>• Network components: servers, nodes, hubs, switches, modems bridges and routers.</li> </ul>	
5	<b>Images and Audio-Video Formats</b>	<ul style="list-style-type: none"> <li>• Popular raster image formats popular vector Image formats</li> <li>• Concept of Interlaced Images,</li> <li>• Introduction to various audio formats and MIDI and concept of Streaming Audio</li> <li>• Introduction to various video formats and concept of Streaming Video</li> </ul>	

S. No.	Topic/Unit	Sub-Unit	Lectures
6	<b>Data Management using Access</b>	<ul style="list-style-type: none"> <li>• Study of MS Access screen and menus</li> <li>• Database terminology</li> <li>• Data Types in Access</li> <li>• Rules for Field Names</li> <li>• Creating a simple database</li> <li>• Viewing and editing data</li> <li>• Relationships</li> <li>• Utilities in Access</li> <li>• Querying database</li> <li>• Printing your data.</li> </ul>	
7	<b>Tally</b>	<ul style="list-style-type: none"> <li>• Creating and configuring Company Menus related to Accounts.</li> <li>• Creating, Displaying and altering Groups.</li> <li>• Creating, Displaying and altering Ledgers.</li> <li>• Study of Cost centers. Study of Vouchers and their entries.</li> <li>• Printing Purchase orders, Sales orders and Invoice,</li> <li>• Study of Trial Balance, Balance Sheet and Profit and Loss Account</li> </ul>	

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**Scope and Limitation**  
**Practical List**

1. Creation of a Website
2. Creation of a Website with Frames and CSS
3. Hyperlinks on a Web Page using Client Side Image Mapping
4. Hyperlinks on a Web Page using Server Side Image Mapping
5. Use of Audio and Animation on Web Pages
6. Use of Video on Web Pages
7. Creation and Publishing a Website using FTP
8. Cross Browser Testing and Differences in Rendering
9. Use of an Embedded Indian Font on a Web Page
10. Conversion between Audio File Formats
11. Image Conversion between Image file formats
12. Conversion between Video file formats
13. Creation of a database with a simple Query using Access
14. Application of 'Compact' Utility to an Access Database and study and analysis of original and compacted database
15. Creation of Groups using Tally
16. Creation of Ledger using Tally
17. Creation of Purchase Order using Tally
18. Creation of Sales Order using Tally
19. Creation of an Invoice using Tally
20. Creation of a Company using Tally

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**Scope and Limitation**  
**Reference and Software List**

**1. Web Publications**

**References:**

Web Publishing, Monica and Jude D'Souza, TMH

Chapters 8, 9, 10 (excluding CGI Scripting and ASP), 11 (excluding marquee and Java Applets), 13, 14, 15 (only Cross-Browser Testing)

Microsoft WEFT Web Font Creator Online Help/Information Files (<http://www.microsoft.com/typography/web/embedding/>)

**Software:**

Windows component Notepad or any free Text Editor

Microsoft WEFT 5.3.2 or later

Internet Explorer 6 or higher and Netscape 7.2 or higher.

**2. Cyber law and Ethics**

**References:**

Information Technology Act 2000, - Manager, Govt. of India Press (<http://www.mit.gov.in/itbillmain.asp>) (Chapters 1, 2 and 4)

Computers Today, Suresh K. Basandra, Galgotia

Cyber Law Simplified, Vivek Sood, TMH

Information Technology The Breaking Wave, Dennis Curtin, Foley, Sen & Morin, TMH (for 10 commandments)

**3. E-Commerce**

**Reference:**

E-Commerce Strategy, Technologies and applications by David Whiteley TMH (1.1 to 1.6, 7.1 to 7.5, 8.1 to 8.3, 9.6)

**4. Introduction to Networking**

**Reference:**

Networking In Easy Steps – Peter Ingram Computer Step Dreamtech Press (Pages 8, 9, 13 to 23)

Networking Essentials-Techmedia

## 5. Images and Audio-Video Formats

### Reference:

Multimedia – Making it Work, Tay Vaughan, TMH

CorelDraw in Easy Steps, Dreamtech Press, (Chapter 10: Working with Images for Std XII)

### Software (Version numbers later than those mentioned here are acceptable)

Microsoft Windows Components Sound Recorder, Media Player 9, Microsoft Picture Manager/Photo Editor (part of MS Office), Apple QuickTime 6

Video Encoding/Decoding/Editing Utilities (trial Versions or Freeware only) such as

**AVI to MPEG Encoders** by Honestech MPEG Encoder 2.0 from <http://www.honestech.com>, DVMPEG from <http://www.darvision.com>, AVI2MPEG Ush AVI to mpg encoder from <http://www.ush.de/avi2mpeg.htm>, MPEG-Softengine from <http://www.mpeg-softengine.de> or any other freeware.

**MPEG to AVI Decoders** by MPEG-Softengine from <http://www.mpeg-softengine.de> or any other freeware.

More information on software available at MPEG.ORG (<http://www.mpeg.org>) and softlandmark ( <http://softlandmark.com/videoencoder.htm>)

## 6. Data Management using Access.

### Reference:

Access in Easy Steps, Stephen Copestake, Dreamtech Press, IDG Books

### Software:

Microsoft Access 2000 or higher (part of Microsoft Office)

## 7. Tally

### Reference:

Financial Accounting on Computers using TALLY, Namrata Agarwal, Dreamtech Press.

### Software:

Tally: Ver 5.4 or higher, compatible with the Windows Version being used.

**Std. XI and XII Information Technology Commerce (99)**  
**Scope and Limitation**  
**Full Reference List for Books**

**Reference:**

1. Information Technology The Breaking Wave, Dennis Curtin, Foley, Sen & Morin, TMH
2. Office 2002 in Easy Steps, Dreamtech Press, IDG Books
3. Lotus SmartSuite Manual/Help Files/Online Help
4. Access 2002 in Easy Steps, Stephen Copestake, Dreamtech Press, IDG Books
5. Help Files of the Indian Language Editor used. (Software)
6. Multimedia – Making it Work, Tay Vaughan, TMH
7. Microsoft Paint Help Files
8. Internet-An Introduction CISTems – TMH
9. Computer Concepts, 4<sup>th</sup> Edition, JJ Parsons & D.Oja Thomson Learning
10. Concept of Database Management, Pratt and Adamski, Thomson Learning, 3<sup>rd</sup> Ed.
11. Financial Accounting on Computers using TALLY, Namrata Agarwal, Dreamtech Press.
12. Web Publishing, Monica and Jude D'Souza, TMH
13. Microsoft WEFT Web Font Creator Online Help/Information Files (<http://www.microsoft.com/typography/web/embedding/>)
14. Information Technology Act 2000, - Manager, Govt. of India Press (<http://www.mit.gov.in/itbillmain.asp>)
15. Computers Today, Suresh K. Basandra, Galgotia
16. Cyber Law Simplified, Vivek Sood, TMH
17. E-Commerce Strategy, Technologies and applications by David Whiteley TMH
18. Networking In Easy Steps – Peter Ingram Computer Step Dreamtech Press
19. Networking Essentials-Techmedia
20. CorelDraw in Easy Steps, Dreamtech Press

**Std. XI and XII Information Technology Commerce (99)**  
**Scope and Limitation**  
**Full Reference List for Software**

**Server OS**

- **Microsoft Windows 2003 Server with the latest Service Packs/ Updates(recommended)**
- Minimum Requirement: Microsoft Windows 2000 Server + Service Pack4 or higher updates (Acceptable but not recommended)
- Windows NT 3.5 Server and Windows NT 4 Server is not acceptable.
- The Windows server version chosen must be compatible with the maximum number of nodes to be used.
- The OS must be updated with the latest Microsoft Service packs and updates as and when available
- Enable IIS for IT Science Practical

**Node/Workstation OS**

- **Microsoft Windows xp Professional + Service Pack 2 OR higher PC version of Windows that can logon to a domain server.**
- **The OS must be updated with the latest service packs and updates available**
- **Windows xp Home, 2000 Professional, ME, 98SE, 98, 95-OSR2, 95, NT-3.5 Workstation or NT-4 Workstation are not acceptable as OS and the Online Examination Software will not support these operating systems.**
- **Support and recommendation for compatible operating systems that may become available later will be made known.**

**Windows Components**

Notepad, Paint, Sound Recorder, Media Player 9 or later and Internet Explorer 6 or later, Disk Cleanup, Defragmenter and Error-Checking  
*(Media Player and Internet Explorer is pre-installed/freely available)*

**Essential Software (Freeware/Shareware)** (Higher versions are acceptable too)

**Netscape 7.2, WS\_FTP, Yahoo! Messenger 6, MSN Messenger 6.2, Microsoft WEFT 5.3.2 Full, Nullsoft Winamp 5.05, Real Player 10, Apple QuickTime 6, WinRAR 3.40 and WinZip 9**, Any freeware Antivirus Package such as **AVG Antivirus 6.0 Free Edition** ([www.grisoft.com](http://www.grisoft.com)) or higher, Freeware **AVI to MPEG Encoders** and **MPEG to AVI Decoders** \* (list Given ahead)

**Microsoft Office 2003/2002/2000 or later with MS-Access for Windows**

*Lotus Smart Suite is Optional*

**IndiaPage (preferred) or iLeap Indian Language Word Processor.**

**Tally Ver. 5.4** or higher, compatible with the Windows Version being used.

**\*Freeware AVI to MPEG Encoders** by

- Honestech MPEG Encoder 2.0 from <http://www.honestech.com>,
- DVMPEG from <http://www.darvision.com>,
- AVI2MPEG Ush AVI to mpg encoder from <http://www.ush.de/avi2mpeg.htm>,
- MPEG-Softengine from <http://www.mpeg-softengine.de> or any other freeware.

**Freeware MPEG to AVI Decoders** by

- MPEG-Softengine from <http://www.mpeg-softengine.de> or any other freeware.

More information on software available at MPEG.ORG (<http://www.mpeg.org>) and softlandmark ( <http://softlandmark.com/videoencoder.htm>)



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**Scope and Limitation**  
**Hardware Requirement List**

**Computer Lab. Computer Number Requirement**

**at least 1 Main server + Nodes/Workstations whose number is at least equal to 1/4<sup>th</sup> the number of IT students enrolled in Std. XII for all Faculties combined, or greater.**

**Computer Lab. Hardware Requirements**

1. Intel Pentium 4/ AMD Athelon xp @ 2.6 GHz clock speed or higher
2. Switching Hub with sufficient number of ports to connect all computers in a network.
3. At least 256 MB DDR SDRAM
4. 40 GB IDE Hard disk Drive @7200 RPM or Greater
5. CD or DVD Writer on at least one machine
6. Sound Card or Built-in sound on Motherboard + Speakers (on at least 4 nodes)
7. 15" SVGA Color Monitor or larger
8. 10-100 MBPS Ethernet Cards in every computer
9. Laser Printer, Dot Matrix Printer and Inkjet Printer (Total 3 printers)
10. A Common High Power UPS for all machines is recommended although an individual UPS for every computer acceptable.
11. Electrical Wiring of the Computer Lab must have provision for Power Feed through a Generator.
12. Generator (Optional)
13. Modem (optional, if needed) PSTN, ISDN or Cable Modem to suit the type Internet Connection.
14. Data Projector (optional)

**Computer Lab. Network and Internet Requirements**

The server along with all the workstations must be connected through the switching hub. A domain will have to be created on the Server and all workstations/nodes should logon to the domain server. Enable IIS Services on the Server (not on the Individual Nodes) for Science.

Internet connectivity should be available for all the computers in the network in one of the following ways:

- Cable Internet Connection through Cable modem or Broadband.
- ISDN Telephone connection with ISDN modem
- Wireless Telephone connection (Through a GPRS/GSM Cellular Phone or CDMA Mobile/WLL Phone)
- Simple PSTN (ordinary Telephone line) through a dial-up modem.

The functionality of the Internet connection and its efficiency must be tested regularly to ensure proper working speeds and consistency when **all** computers are used for Internet related activity **at the same time**.