

अनुसूची - २ (पाठ्यक्रम)

1. Computer Fundamentals

- 1.1 Computer: - Definition, Characteristics, Types & Applications.
- 1.2 Overview of a computer system-
 - 1.2.1 Data and data processing
 - 1.2.2 Hardware
 - 1.2.2.1 Definition of Hardware
 - 1.2.2.2 Input Unit:- Keyboard, Mouse, Scanner, etc
 - 1.2.2.3 CPU:- Arithmetic Logic Unit (ALU), Control Unit (CU), Memory Unit (MU)
 - 1.2.2.4 Output Unit:- Monitor, Printer, etc
 - 1.2.2.5 Storage devices: - Primary & Auxiliary Memory (Hard Disk, Compact Disk, DVD, Flash disk)
 - 1.2.2.6 Network card
- 1.3 Cache Memory
- 1.4 Concept of Computer related threats (Virus, worms, Trojan, phishing etc) remedies and protection
- 1.5 Concept of Multimedia
- 1.6 File Management base:
 - 1.6.1 Concept of File and folder
 - 1.6.2 Wildcards and Pathname
 - 1.6.3 Type of files and file extension
- 1.7 Number Systems
 - 1.7.1 Introduction to ASCII and Unicode standards

2. Basic Concept of Software

- 2.1.1 Software and its types
- 2.1.2 Form and form element
- 2.1.3 Types of software error
- 2.1.4 Concept of data validation

3. Computer Networking

- 3.1 Introduction to Networking
- 3.2 Types of Network (LAN, WAN etc.)
- 3.3 Concept of E-mail/ Internet/Extranet/ Intranet, Word wide web (WWW)
- 3.4 Familiarity with internet browsers (e.g | Internet, explorer, Firefox, Opera, Safari, Google Chrome etc)
- 3.5 Introduction to IP address, subnet mask and default gateway
- 3.6 Introduction to Network Media, Topology and Protocol
- 3.7 Setting Up Network
- 3.8 Concept of VPN

4. Hardware Maintenance and Troubleshooting

- 4.1 Hardware Maintenance
 - 4.1.1 Configure and apply BIOS settings
 - 4.1.2 Installing and configuring storage devices
 - 4.1.3 Connector types (BNC, RJ45, HDMI) and associated cables
 - 4.1.4 Installing and configuring various peripheral devices (Mouse, Keyboard, Scanner, Printer, Speaker)
- 4.2 Troubleshooting
 - 4.2.1 Troubleshooting of computer and its peripherals (keyboard, mouse, printer, scanner, speaker)
 - 4.2.2 Troubleshooting of connectivity (cables, network, etc.)
 - 4.2.3 Troubleshooting of memory, processor, storage, display
 - 4.2.4 Troubleshooting of operating system and application software

5. Operating System

5.1 Introduction to Operating System

5.2 Types of Operating System

5.3 Function of Operating system

5.4 Command line operation (e. g copy command, move command to view and set different file attributes etc)

5.5 Windows

5.5.1 Introduction to GUI

5.5.2 Introduction of windows Operating System

2.5.2.1. Basic windows Elements- Desktop, Taskbar, My Computer, Recycle Bin, etc.

2.5.2.2. File Management with Windows Explorer

2.5.2.3. Windows applications: (e.g Control Panel, Character Map, Paint etc)

2.5.2.4. Finding file of folders and saving the result

2.5.2.5. Starting a program by command line operation

2.5.2.6. Changing window settings

2.5.2.7.1 Adding/Removing programs

2.5.2.7.2 Clearing the contents of document menu

2.5.2.7.3 Control panel items

2.5.2.8 Creating shortcut (icons) on desktop

2.5.2.9 System tools: - disk scanning, disk defragmenter, backup, restore, format

6. Word Processing

6.1 Concept of word Processing

6.2 Types of word Processing

6.3 Introduction to word Processor

6.3.1 Creating saving and Opening the documents

6.3.2 Elements of word Processing Environment (Menu. Toolbars, Status bar, Rulers. Scrollbars. etc.)

6.3.3 Copying, Moving Deleting and Formatting Text (Font, Size, Color, Alignment, Line & paragraph spacing)

6.3.4 Finding and Replacing Text

6.3.5 Familiar with Devanagari/Romanize Fonts

6.3.6 Creating lists with Bullets and Numbering

6.3.7 Creating and Manipulating Tables

6.3.8 Borders and Shading

6.3.9 Use of Indentation and Tab Setting

6.3.10 Inserting Header, Footer, Footnotes, Endnotes, Page Numbers, File Page break Section break, Graphics, Pictures, Charts, Word Art. Symbols & Organization Chart

6.3.11 Operating & saving different types of document

6.3.12 Changing Default settings

6.3.13 Security Technique of Documents

6.3.14 Master Document, Cross Reference, Index, Table of Content.

6.3.15 Setting Page Layout, Previewing and Printing Documents

7. Electronic Spreadsheet

7.1 Concept of Electronic Spreadsheet

7.2 Types of Electronic Spreadsheet

7.3 Organization of Electronic Spreadsheet application (Cell, Rows, Columns, Worksheet, Workbook and workspace)

7.4 Introduction to spreadsheet application

7.4.1 Elements of Electronic Spreadsheet Environment (Menu Toolbars, Status bar Rulers. Scrollbars etc)

7.4.2 Editing, Copying Moving Deleting Cell Contents

7.4.3 Familiar with Devnagari Fonts

- 7.4.4 Formatting Cells (Font, Border, Pattern, Alignment, Number and Protection)
- 7.4.5 Formatting Rows, Column and sheets
- 7.4.6 Using Formula- Relative cell and Absolute Cell Reference
- 7.4.7 Using basic Functions
- 7.4.8 Generating Series
- 7.4.9 Sorting and Filtering Data
- 7.4.10 Summarizing Data with Sub Totals
- 7.4.11 Creating Chart
- 7.4.12 Inserting Header and Footer
- 7.4.13 Importing form and Exporting in to other Formats
- 7.4.14 Page Setting, Previewing and Printing

8. Database System

- 8.1 Introduction to Data, Database and DBMS
- 8.2 Basic Concept of Tables, Fields, Records, Relationships and Indexing
- 8.3 Introduction to database application
 - 8.3.1 Data Types
 - 8.3.2 Creating Modifying & Deleting Tables and Formatting & Validating Field Data
 - 8.3.3 Creating Modifying, Deleting & Using simple Queries
 - 8.3.4 Creating, Modifying & Deleting Forms/ Reports/ Macros

9. Presentation System

- 9.1 Introduction to presentation application
 - 9.1.1 Creating, Opening & Saving Slides
 - 9.1.2 Formatting Slides
 - 9.1.3 Slide show
 - 9.1.4 Animation
 - 9.1.5 Inserting Built- in picture, Table, Chart, Graphs Organization Chart etc.

10. Web Technology

- 10.1 Introduction to Web Page and Content Management System
- 10.2 Introduction to HTML
- 10.3 HTML document
 - 10.3.1 Html Tags
 - 10.3.2 Working with Text, Hyperlinks, Images, Lists, Forms, Tables, Frames, etc.
- 10.4 Familiarity with Cascading Style Sheet, Rich Site Summary and social networking
- 10.5 Concept of Web server and Proxy server
- 10.6 Introduction to Cryptography (Encryption/Decryption)
- 10.7 Digital Certificate and Digital Signature