Learning Outcomes

1. Fundamentals of Computer

1.1   Explains data and information with suitable examples and distinguishes them.

1.2   Identifies various stages in data processing and explains the activities of each stage.

1.3   Explains the functional units of a computer with the help of a block diagram.

1.4   Explains why the computer is the best electronic data processing machine and lists its characteristics.

1.5   Infer the concept of data representation inside computers.

2. Components of the Computer System

2.1   Identifies microprocessor and lists registers.

2.2   Distinguishes various types of memory and lists their importance.

2.3   Distinguishes different types of input/output devices based on their uses and features.

2.4   Recognises the importance of e-Waste disposal and the learner's role in its disposal.

2.5   Explains the concept of green computing

2.6   Distinguishes between system software and application software

2.7   Recognises the need and functions of an operating system.

2.8   Classifies various language processors and recognise their need.

2.9   Lists the uses of different types of utility software.

2.10   Distinguishes and lists the use of word processor, electronic spread sheets and presentation software.

2.11   Explains the importance of open source concepts

2.12   Distinguishes the difference between freeware, shareware and proprietary software.

2.13   Lists the advantages of freeware and shareware.

2.14   Lists and illustrates various human ware or live ware.

3. Data Processing with Electronic Spreadsheet

3.1　Explains the need for using Spreadsheet software in alpha numeric data processing.

3.2　Identifies the various features and potential of Spreadsheet software.

3.3　Converts a manual worksheet into electronic form.

3.4　Applies formula to do various calculations in a worksheet.

3.5　Formats the worksheet data and arrange them in a meaningful manner.

3.6　Prepares useful reports and takes a hard copy.

4. Data Analysis using Spreadsheet

4.1　Uses various built-in mathematical functions for arithmetic operations like adding, rounding etc.

4.2　Performs statistical operations like average, count, finding minimum/maximum etc. using built-in functions.

4.3　Identifies the use of logical functions available in the software for what-if analysis.

4.4　Applies various text functions for operations like case conversion, finding length of a string etc.

4.5　Utilises the sorting and filtering feature for data manipulation and preparation of desired reports.

4.6　Draws different types of charts for data analysis and quick interpretation of results.

5. Presentation Software

5.1　Uses the presentation software for presenting some topic before the audience

5.2　Adds more slides with useful layouts to the presentation.

5.3　Formats the slides to improve the appearance.

5.4　Inserts various objects like images, tables, audio, video etc.

5.5　Applies animations and slide transitions to make the slide show more attractive..

5.6　Utilises the sorting and filtering feature for data manipulation and preparation of desired reports.

5.7　Views the slide contents in various slide views,

5.8   Draws different shapes in the slides

5.9   Prints out the slide contents.

6. Getting Started with GIMP

6.1   Explains image editing with types of editors

6.2   Uses GIMP software for simple image editing and image format converting

6.3   Identifies the role of Layers in Image Editing software

6.4   Identifies various selection tools in GIMP to perform various operations

6.5   Inserts text in an image and exports it

6.6   Identifies various transform tools in GIMP and applies to an image

7. Advanced Tools for Image Editing

7.1   Uses Paths tool to create patterns, selections and aligning text.

7.2   Uses colours in GIMP for editing images.

7.3   Explains the different colour schemes.

7.4   Uses the various GIMP tools to modify an image.

7.5   Uses filters to alter an image in GIMP.

7.6   Uses Logos tool to create animations and export to GIF format.

8. Computer Networks

8.1   Recognises the computer network and its uses.

8.2   Identifies the essential components of communication system.

8.3   Recognises the various communication media.

8.4   Recognises the various data communication devices.

8.5   Identifies and explains the working of data terminal equipments.

8.6   Identifies the importance of each network topologies.

8.7   Lists the different types of network and identifies their scope.

8.8   Distinguishes the logical classification.

8.9 Recognises the need for protocol and explains its uses and functioning.

8.10 Lists the ways of identifying computers in a network.

8.11 Recognises the structure and working of URL.

9. **Internet**

9.1 Recognises the people behind the evolution of Internet.

9.2 Identifies the hardware and software requirements for Internet connection.

9.3 Uses the services available on the Internet.

9.4 Identifies the role of WWW as a service on the Internet.

9.5 Explains the use and working of search engines.

9.6 Explains the structure and working of e-mail.

9.7 Classifies the different types of social media.

9.8 Judges the risks while interacting in social media.

9.9 Recognises the threats to network security.

9.10 Recognises the measures for preventing network attacks.

9.11 Lists the guidelines for using Internet.

10. **IT Applications**

10.1 Identifies various fields where IT is used extensively.

10.2 Lists out types of interaction in e-Governance.

10.3 Explains the advantage and challenges in using e-Governance.

10.4 Identifies various fields in which e-Governance is used.

10.5 Explains the concept of e-Business and lists various advantages and challenges facing the e-Business field.

10.6 Describes e-Learning and lists out various e-Learning tools.

10.7 Describes the advantages and challenges in implementing e-Learning.

10.8 Writes about the use of ICT in health care.

10.9 Lists out various ICT enabled devices used in health care.

10.10 Distinguishes between various other ICT enabled services.