1. INFORMATION AGE

History of Computers

i. Computing devices.

ii. Concept of the Number system in computing.

iii. Generations of Computer: first, second, third, fourth, fifth generations of computer.

Candidates should identify the various computing devices since the beginning of counting/computing.

Should include the importance of number system to computing.

Relate each generation with its characteristic feature. describe each generation under the following: year of development, basic component/type of technology, speed of operation, storage capacity/component.

2. Data and Information

- i. Definition of <u>data</u> and information.
- ii. Types of Data.
- ii. Ways of handling Data.
- iii. Definition of Data.
- iv. Digitalization.

Differences between data and information should be emphasized

3. BASIC COMPUTING

Classification of Computers

Classify computers by Type, Size, Usage.

4. Application of ICT in everyday life

i. Uses of ICT in everyday activities.ii. Impact of ICT in society.The use and areas of ICT application should be linked to societal development.

5. Components of Computers

i. Input Devices. ii. Output Devices. iii. System Unit.iv. Storage DevicesExamples of each component should be treated and how they are used in the data processing.

6. INFORMATION PROCESSING

The art of Information processing

- i. Definition of Information Processing.
- ii. Steps involved in Information Processing.

Description of each step involved in information processing is required.

7. INFORMATION TRANSMISSION

Process of Information transmission

- i. Definition of information transmission.
- ii. Methods of transmitting the information.

Modes of information transmission such as visuals(newspaper), audio(radio, telephone), audiovisual(GSM, Television) are required.

8. Medium of Information Transmission

i. Types of Information Transmission.ii. Classification of means of transmission.Medium of information transmission such as radio, television, newspaper, etc.

9. NETWORKING

i. Meaning of Networking, Internet, and Intranet.

ii. Types of Networking. The significance of networking should be mentioned

Types such as MAN, LAN, WAN should be treated.

10. INTERNET

- i. Definition of the Internet.
- ii. Benefits of the internet
- iii. Internet browsers
- iv. Internet security
- v. Abuse of the Internet

Candidates should be able to develop skills in the use of various services available on the internet

11. TOOLS FOR PROCESSING INFORMATION

Operating System

- i. Definition of Operating System.
- ii. Types of Operating System.
- iii. Examples of Operating Systems.
- iv. Functions of Operating System.

Differences between text (character) base interface and Graphical User Interface should be treated.

12. WORD PROCESSING

- i. Definition of Word Processing.
- ii. Uses of Word Processing
- iii. Examples of word processing software.
- iv. Starting, loading, and exiting word processing
- v. Creating, saving, and retrieving documents

Candidates should be able to make use of a word processor to create and manipulate documents

13. SPREADSHEET

- i. Definition.
- ii. Uses.
- iii. Examples of Spreadsheet Applications.
- iv. Loading and exiting spreadsheets.
- v. Creating, saving, and retrieving Spreadsheet files.

Candidates should be able to make use of a spreadsheet to create and manipulate worksheets

14. DATABASE MANAGEMENT SYSTEM

- i. Definition.
- ii. Uses.
- iii. Examples of Database Applications.
- iv. Loading and exiting DBMS.
- v. Creating, saving, and retrieving database files.

i. Candidates should be able to use DBMS to create and manipulate database files.

ii. Include examples of packages for database management such as Microsoft Access.

15. PRESENTATION PACKAGES

i. Definition, uses examples.

- ii. Loading and exiting Presentation programs.
- iii. Creating, saving, and retrieving presentation files.

i. Candidates should be able to use presentation programs to create and manipulate slides.

16. WEB DESIGN PACKAGES

i. Definition.

- ii. Uses.
- iii. Components.
- iv. Examples. Designing web pages is not required.

17. GRAPHIC PACKAGES

i. Definition.

- ii. Uses of Graphic software packages.
- iii. Examples of graphic packages. The focus should be placed on Corel Draw

18. COMPUTER MAINTENANCE, ETHICS, AND HUMAN ISSUES

Maintenance of Computer

- i. General Cleaning.
- ii. Battery Charging and replacement for portable systems and UPS.
- iii. DVD drive lens cleaning.
- iv. Details of Hardware maintenance.
- v. Details of Software maintenance.
- vi. Computer crash and data recovery.

candidates should take note of basic maintenance procedures. students should be able to ensure data integrity and recover data after a crash

19. COMPUTER ETHICS

- i. Computer room management ethics.
- ii. Laboratory rules and regulations.
- iii. Responsible ways of using and securing computers

20. SAFETY MEASURES

i. The sitting arrangement.

- ii. Positioning of the monitor, keyboard, CPU, mouse, and any other peripheral devices.
- iii. Illuminating the computer room.
- iv. Maintaining a dust-free environment.
- v. Keep liquid away from the computer room.

The importance of safety measures should be emphasized.

Career opportunities in Data Processing

- i. Professions in computer.
- ii. Qualities of a good data processing professional.
- iii. Computer professional bodies.

Duties of each professional/professional body should be treated.

21. COMPUTER VIRUS

i. Definition.

- ii. Types/Examples.
- iii. Sources.
- iv. Signals of virus warning
- v. Virus prevention, detection, and deletion. Destructive effects of virus infection on computers

22. DATA MANAGEMENT

Relational Model

- i. Database and table creation using application packages.
- ii. Creating relationships between tables
- iii. Creation of forms, queries, and reports.

Arranging data in tables and forms should be emphasized

The concept of primary and foreign keys, entities, attributes, and relationships should be emphasized.

Query language should be limited to those available to the database application package (e.g. query by example, SQL).

23. FILE ORGANIZATION

i. Definition of File organization.

ii. Types of File organization.

Comparison between the various types of File Organization is required.

24. DATABASE SECURITY

i. Concept of data security, access control, and data encryption.

ii. Role of a database administrator.

Importance of securing data is required

25. PARALLEL AND DISTRIBUTED DATABASES

i. Basic concept of parallel and distributed database.

ii. Storing data in a distributed database (DBM)

Definitions of concepts is required

Significance of storing data in a distributed database management system is also required.