M.Sc. ENVIRONMENTAL SCIENCE
First Semester
COMPUTER APPLICATION & INFORMATION TECHNOLOGY
(MEV - 104)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any *four* from *Question no.* 2 to 8
Question no. 1 is compulsory.

1. Define computer. What are the characteristic features of a computer? Classify computers based on performance and price. Discuss the components of computer with suitable blog diagram. (1+2+3+4=10)

2. What do you mean by generations of computer? Discuss the salient features of the different generations of computers. (2+8=10)

3. What is DBMS? What are the advantages of RDBMS? Explain the different schemas in DBMS architecture. (3+3+4=10)

4. What is an operating system? What are its functions? Write a brief note on layers of operating system. Give two examples of operating system. (1+3+4+2=10)

5. What is computer network? Write an explanatory note on computer network and its types. Give suitable diagram in support of your answer. (1+7+2=10)

6. What is a virus? What are the elements of computer virus? What damages can be cause by a computer virus? Support your answer with suitable example. (1+4+5=10)

7. What do you mean by data processing? What are the types and functions of data processing? Describe different methods of data processing with suitable examples.
(1+4+5=10)

8. Write an explanatory note on application of computer and information technology in studies related to earth's resources. (10)

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Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Choose the correct answer:

1×20=20

1. Which generation is associated with vacuum tube technology?
   a. First
   b. Second
   c. Third
   d. Fourth

2. Pointing devices and GUIs were started during
   a. Second Generation
   b. Third Generation
   c. Fourth Generation
   d. Fifth Generation

3. Capability of learning, recognition and self-organization leading to better decision making is known as
   a. Natural Language Processing (NLP)
   b. Integrated Circuits (IC)
   c. Artificial Intelligence (AI)
   d. Graphical User interface (GUI)

4. SQL stand for
   a. Sequential Query Language
   b. Structured Query Language
   c. System Query Language
   d. Software Query Language

5. The collection of database at a particular moment is called
   a. Meta data
   b. Schema
   c. Instance
   d. DBMS

6. Columns in a DBMS table refers to
   a. Attributes
   b. Records
   c. Entity
   d. Tuples

7. Database model based on tree structure is
   a. Network
   b. Flat file
   c. Hierarchical
   d. Relational

8. Which one of the following is an example of RDBMS?
   a. MySQL
   b. Oracle
   c. Sybase
   d. All of the above

9. Table attribute with unique identification and non-redundancy is called
   a. Primary Key
   b. Foreign Key
   c. Secondary Key
   d. System Key

10. Which of the following functions can be done with Data Manipulation Language?
    a. Create and delete data
    b. Retrieve and edit data
    c. Control data security
    d. All of the above

11. _____ is online data processing.
    a. Random access processing
    b. Multiple access processing
    c. Serial processing
    d. User defined processing

12. Billing system is done by _____
    a. Batch processing
    b. Real time processing
    c. Multi processing
    d. Time sharing processing

13. Multi access system is _____
    a. Time sharing processing
    b. Multi processing
    c. Online processing
    d. All the above

14. Laptop is a type of
    a. Micro computer
    b. Mini computer
    c. Mainframe computer
    d. Super computer

15. Drivers are _____
    a. System software
    b. Application software
    c. Operating software
    d. Hardware

16. The main function(s) of operating system is/are
    a. Programme creation
    b. Programme execution
    c. Programme protection
    d. All the above

17. Red Hat is a type of
    a. Linux OS
    b. Windows OS
    c. Mac OS
    d. Unix OS

18. In LAN, the area coverage is
    a. 0 – 10 km
    b. 1 – 10 km
    c. 2 – 10 km
    d. 3 – 10 km

19. VIRUS means
    a. Vital Information Resource Under Seize
    b. Vital Information Rescued Under Supervision
    c. Various Important Resource Under Supervision
    d. None of the above

20. FAT means
    a. File Allocation Table
    b. File Access Table
    c. File Advice Table
    d. File Added Table

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