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(20425)

Roll No.

B.Sc. (Micro)-III Year

3512

B.Sc. (Micro.) Examination, April-2025

FUNDAMENTAL OF INFORMATION

TECHNOLOGY

(B-309)

[B.Sc. (Micro.)]

Time : Three Hours]

[Maximum Marks : 25

Note : Attempt any **five** questions. Each question carries equal marks.

1. Differentiate among the following types of Operating System by defining their essential properties.
 - (a) Time sharing system
 - (b) Realtime system

(c) Parallel system

(d) Simple batch system

2. Define Operating System. Also explain pipe and filter command in Unix with example.
3. Discuss various types of network topologies in computer network. Also discuss various advantages and disadvantages of each topology.
4. Write short note on any **two**-
 - (a) Features of LAN, MAN, WAN
 - (b) Applications of Computer Networks
 - (c) Network connecting devices with example
 - (d) Internet vs Intranet with examples

5. Create a Table named STUDENT with the following structure.

Student-Id	Number
First-Name	Char 20
Last-Name	Char 20
GPA	Float (2,2)
Enrollment-date	Date
Fellowship	Number

- (i) Display the name of the student having the lowest fellowship.
- (ii) Write an SQL query to fetch the total no. of students.
- (iii) Write an SQL query to fetch students full names with $GPA \geq 8.5$ and ≤ 9.5
6. Explain DBMS. What is difference between Primary, Secondary and Foreign key.

7. What are the differences between DBMS and RDBMS. Who is the DBA? What are the responsibilities of a DBA?
8. Write short note on any **three** -
- (a) Hashes and Pattern Matching
 - (b) Hypertext linking and forms
 - (c) Operators and Arrays
 - (d) Java Script
 - (e) CGI