

**MASTER OF COMPUTER  
APPLICATIONS  
(MCA) (REVISED)**

**Term-End Practical Examination**

**June, 2025**

**MCSL-045(P)(Set-I) : UNIX AND DBMS LAB**

*Time : 2 Hours* *Maximum Marks : 50*

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*Note : (i) There are two Sections in this paper.*

*(ii) Each Section is of 1 hour duration  
and carries 20 marks each.*

*(iii) 5 marks are for viva-voce for each  
Section separately.*

*(iv) Attempt only that Section(s) which is  
not yet clear.*

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**Section—A**  
**(UNIX)**

1. Write and execute UNIX commands for the following :  $5 \times 1 = 5$ 
  - (a) To list all background jobs.
  - (b) To kill a process using its PID.
  - (c) To check the memory usage of the system.
  - (d) To view the last login details of users.
  - (e) To change directory to the parent folder.
2. Write a shell script to accept 10 numbers and print the maximum and minimum among them. 15

**Section—B**  
**(DBMS)**

3. Write the following database schema : 10

Instructor (InstructorID, Name, Subject, Join year)

Course (CourseID, Name, InstructorID)

Student (StudentID, Name, CourseID, Grade)

[ 3 ]

- Use appropriate primary and foreign keys.
- Insert 5 records in each table.

4. Write SQL queries for the following database :  $5 \times 2 = 10$

- Display the names of all instructors who teach “Mathematics”.
- List students who scored grade ‘A’.
- Count the number of students per course.
- Show course names taught by Instructor ID = 101.
- Display the average grade (considering A = 4, B = 3, etc.) for each course.

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