FACULTY OF INFORMATICS
M.C.A. (3 Years Course) II Semester (CBCS) (Backlog) (New) Examination, October/November 2023

Subject: Operating Systems

Time: 3 Hours   **Max. Marks: 70**

Note: I. Answer one question from each unit. All questions carry equal marks.
      II. Missing data, if any, may be suitably assumed.

Unit – I

1. a) What about Deadlock Prevention techniques?
   b) Explain about basic syntax of AWK.

(OR)

2. a) Explain Various Types of Threads.
   b) Write about Process Synchronization.

Unit – II

3. a) Explain about Memory management.
   b) What is Swapping with one example?

(OR)

4. a) Explain about Belady's Anomaly with an example.
   b) Write about mechanism of Paging Segmentation.

Unit – III

5. a) Explain about the concept of File system structure.
   b) Write about File Access control techniques.

(OR)

6. a) Explain about Application I/O Interface.
   b) Write about Directory Structure of File System.

Unit – IV

7. a) What are the goals and principles of Protection?
   b) Explain about Security problem.

(OR)

8. a) Explain About the levels of computer security Classification.
   b) Write about Cryptography.

Unit – V

9. a) Explain about various components of Linux system.
   b) Write about Kernel module in Linux.

(OR)

10. a) Discuss about Windows File System.
    b) Explain about Programmer interface of Windows.

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Code No. **E-12064/CBCS**

FACULTY OF INFORMATICS
M.C.A. (3 Years Course) II Semester (CBCS) (Backlog) (Old) Examination, October / November 2023

Subject: Management Information Systems

Time: 3 Hours   **Max. Marks: 70**

Note: I. Answer one question from each unit. All questions carry equal marks.
         II. Missing data, if any, may be suitably assumed.

Unit – I

1. a) Explain Executive support system.
   b) Explain various goals and objectives of information systems.
                                              (OR)
2. a) Explain briefly system and its concepts.
   b) Explain systems environment?

Unit – II

3. a) Explain briefly the strategic information system and its characteristics .
   b) Explain nature and scope of the tactical information system.
                                              (OR)
4. a) Explain Strategic Accounting and financial information systems.
   b) Explain Strategic HR information system and its subsystems.

Unit – III

5. a) What is meant by System Development Life cycle process?
   b) How you as an information manager organize a system plan?
                                              (OR)
6. a) What are the objectives of system analysis ?
   b) What is meant by end user development?

Unit – IV

7. a) What are the various systems and infrastructure for knowledge management?
   b) Discuss about knowledge work and productivity.
                                              (OR)
8. a) What are the components of DSS?
   b) What are the elements of a GDSS?

Unit – V

9. a) What are the different ways in which the data processing can be organized?
   b) Explain various security threats normally faced by an organization.
                                              (OR)
10. a) Briefly explain about the common threats to information systems.
    b) What are Common Controls? Discuss.
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FACULTY OF INFORMATICS

M.C.A. (2 Years Course) II-Semester (Main & Backlog) Examination, October / November 2023

Subject: Database Management Systems

Time: 3 Hours   **Max. Marks: 70**

Note: I. Answer one question from each unit. All questions carry equal marks.
       II. Missing data, if any, may be suitably assumed.

Unit – I

1. a) What is Database System? Describe the applications of Database systems.
   b) Explain about Data Storage and Querying.

(OR)

2. a) Discuss about Database Architecture.
   b) Illustrate Entity Relationship Design issues.

Unit – II

3. a) Describe the structure of Relational Databases.
   b) Give an account on Additional Relational Algebra operations.

(OR)

4. a) Discuss about Aggregate functions in SQL.
   b) Explain about Set Operations in SQL with Example.

Unit – III

5. a) Write about Embedded SQL.
   b) Describe Triggers in SQL with suitable example.

(OR)

6. a) Describe the features of Good relational design.
   b) Write a note on Recursive Queries.

Unit – IV

7. a) Illustrate Dynamic Hashing with Example.
   b) Describe the structure of B+ Trees and its operations.

(OR)

8. a) Discuss about Bitmap and Dense Indices.
   b) Give an account on Serializability.

Unit – V

9. a) Explain about Lock based Concurrency Control Protocols.
   b) Write about Recovery Systems.

(OR)

10. a) Explain about Remote Backup Systems.
    b) Illustrate Key value Databases.

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