

12. Give an account on security issues in a system and also explain possible protection mechanism in short.
13. What is System Call ? Explain remote procedure calls in detail.

**MSCCS-10/MSCCS-204/  
MSCCSC-204/MCA-204**

**June – Examination 2023**

**MCA (IInd Year) Examination**

**OPERATING SYSTEM**

**Paper : MSCCS-10/MSCCS-204/  
MSCCSC-204/MCA-204**

*Time : 3 Hours ]*

*[ Maximum Marks : 80*

*Note :-* The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

**Section-A**

**8×2=16**

**(Very Short Answer Type Questions)**

*Note :-* Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 2 marks.

1. (i) Define Process State.

- (ii) What do you mean by Durability of a Transaction ?
- (iii) Define User Mode.
- (iv) Define Deadlock.
- (v) What is the full form of 'ACID' ?
- (vi) Define critical section problem.
- (vii) What do you mean by Distributed Operating System ?
- (viii) Differentiate the terms encryption and decryption.

**Section-B** **4×8=32**

**(Short Answer Type Questions)**

**Note** :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 8 marks.

- 2. Explain dining philosopher algorithm.
- 3. How can we perform input and output in awk ?
- 4. What are the differences between multiprocessing and multiprogramming operation system ?
- 5. What are advantages and disadvantages of distributed database operating system ?

- 6. How do you handle mutual exclusion in distributed system ?
- 7. Draw the diagram of abstract view of DSM.
- 8. Write down the characteristics of a distribution file system.
- 9. Write difference between centralized and decentralized database system.

**Section-C** **2×16=32**

**(Long Answer Type Questions)**

**Note** :- Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 16 marks.

- 10. What is Distributed Shared Memory ? What are the differences between message passing and DSM ?
- 11. Write short notes on the following :
  - (a) Mutual exclusion
  - (b) Demand paging
  - (c) Cache coherence
  - (d) Kerberos