

**MSCCS–10/MSCCS–204/  
MSCCSC–204/MCA–204**

**June – Examination 2022**

**MCA (IInd Year) Examination**

**OPERATING SYSTEM**

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

*Time : 1½ Hours ]*

*[ Maximum Marks : 80*

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

**Section–A**

**4×4=16**

**(Very Short Answer Type Questions)**

*Note* :- Answer any *four* 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 4 marks.

1. (i) Define Process. Explain process synchronization.
  - (ii) Which types of security threats can occur in a system ?
  - (iii) What is Deadlock ? Differentiate between deadlock detection and prevention.
  - (iv) Explain any *five* commands in Unix with example.
  - (v) What is Remote Procedure Call ? How is it helpful for distributed system ?
  - (vi) What are the advantages of distributed system over centralized system ?
  - (vii) Explain name resolution in Distributed System.
  - (viii) Explain thread life-cycle in detail.
2. Explain Authentication Process in detail.
  3. Explain Mutual Exclusion Technique with suitable example.
  4. Explain ls command with detail of file permission methods.
  5. Give a detailed account on Process Scheduling.
  6. Explain Bankers Algorithm in detail. Is this algorithm is also applicable in distributed environment.
  7. Write a detailed note on Database Operating System.
  8. What is Kerberos ? What is the utility of Kerberos ? Explain its architecture.
  9. Explain Arrays in AWK. Explain each kind of array in AWK using example.

**Section-B** **4×16=64**

**(Short Answer Type Questions)**

**Note** :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 16 marks.