

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2064)

14856

MCA 4th Semester Examination
Distributed Operating System
MCA-E41

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C & D. Section E is compulsory.

SECTION - A

1. What are the main reliability issues in designing a message passing system? Describe a suitable mechanism for handling each of these issues. (12)
2. Explain the different issues in designing distributed operating system. (12)

SECTION - B

3. Discuss in detail different communication protocols for remote procedure call. (12)
4. Explain general architecture of distributed shared memory. (12)

SECTION - C

5. Elaborate different clock synchronization algorithms. (12)

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6. Write a short note on the following:
- (i) Task assignment approach
 - (ii) Process migration
 - (iii) Load sharing approach
- (3×4=12)

SECTION - D

7. (a) What are the desirable features of a naming system? (6)
- (b) Elaborate object locating mechanism. (6)
8. Discuss different file-caching schemes in detail. (12)

SECTION - E

9. Write a short note on the following:
- (i) Exception handling
 - (ii) Group communication
 - (iii) Buffering
 - (iv) Stub
 - (v) Threads
 - (vi) Atomic transactions
- (6×2=12)
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