

Roll No.

Exam Code : J-19

Subject Code—0392

M.C.A. (Fourth Year) EXAMINATION

(5 Years Integrated Course)

(For Batch 2009 Onwards Main & Reappear)

OPERATING SYSTEM-II

MCA-404

Time : 3 Hours

Maximum Marks : 70

Section A

Note : Attempt any *Seven* questions. **7×5=35**

1. Discuss the concept of semaphores.
2. Compare and contrast the contiguous and linked allocation methods for file.
3. Explain the various Directory Structures.

4. Distinguish between pre-emptive and non-pre-emptive scheduling.
5. What do you mean by Inter-process communication ? Give its advantage.
6. What criteria used for CPU scheduling algorithms ?
7. Briefly discuss concept of Memory Management.
8. List important commands of UNIX operating system along with syntax.
9. Define Distributed operating system.
10. Define Bernstein's condition.

Section B

Note : Attempt all the questions.

11. What is an Operating System ? What are its important functions ? Briefly discuss the various types of CPU scheduling algorithm.

Or

Explain the various File Access and Allocation methods used for operating system ? Also, briefly disk scheduling algorithms. **12**

12. What is meant by Deadlock ? Explain essential conditions for occurrence of Deadlock. Also, discuss Deadlock Recovery Methods and Detection Methods.

Or

What do you mean by UNIX operating system ? Explain the salient features of UNIX operating system ? Briefly define UNIX directory structure. **12**

13. Differentiate between the following :

- (a) Process and Program
- (b) Network OS and Distributed OS.

Or

Define the concept of Page Segmentation along with its advantages and disadvantages. Also, discuss Demand Paging. **11**