

Roll No.

Total Pages : 03

MCA/D-18
OPERATING SYSTEM
MCA-14-35

10069

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory. In addition, attempt *four* more questions selecting *one* question from each Unit. All questions carry equal marks.

1. Write short notes on the following :
 - (a) What is Starvation ? Discuss.
 - (b) What is Thrashing ?
 - (c) What are the benefits of a distributed file system when compared to a file system in a centralized system ?
 - (d) What is the solution for external fragmentation ?

Unit I

2. (a) What are System Calls ? Explain with an example.
(b) Explain the different states associated with a process with a diagrams and also explain the PCB in detail.

3. (a) What is Threading ? Explain various types of threading. What are the benefits of multithreaded programming ?
- (b) What is Scheduler ? Explain the types of Scheduler. Explain the scheduling algorithm with some suitable examples.

Unit II

4. What is deadlock ? Explain deadlock characterization in detail and explain deadlock avoidance with Banker's algorithm.
5. What is Page Fault ? How it occurs ? Explain the various page replacement algorithms with some suitable example.

Unit III

6. What is file and explain the various types of extension of file ? Explain the various file access and allocation method.
7. Explain the disk scheduling policies in detail.

Unit IV

8. Explain the various issues involved in the design of a distributed system. How does distributed system differ from a networks operating system ?
9. What is Operating System ? Explain the various types of operating system available in market. Also explain the various version of windows.

