



SU-7621

Seat No. _____

M. C. A. (Sem. II) Examination

May / June – 2006

Operating System

(New Course)

Time : Hours]

[Total Marks : 75

1 Answer the following : (any **five**) **25**

- (1) What is operating system ? Explain the types of operating system.
- (2) Explain dining philosophers' problem.
- (3) Explain LRU (Least Recently Used) – page replacement algorithm.
- (4) What is operating system process ? Explain the process states.
- (5) Discuss the components of Linux system.
- (6) Explain RAID.
- (7) What are the security threats ? Explain.

2 Explain Multiprogramming with variable partitioning. **7**

OR

2 What is PCB ? Explain in detail. **7**

3 Answer the following : (any **five**) **25**

- (1) How can we detect the deadlock ?
- (2) Explain Banker's algorithm for a single resource.
- (3) What is thread ? Explain in detail.
- (4) Write a note : Semaphores.
- (5) Write a note : Direct Memory Access (DMA)
- (6) What is file sharing ?
- (7) What is scheduling ? Explain scheduling criteria.

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[Contd...

4 What is scheduling ? Explain scheduling algorithms. **6**
(any **two**)

OR

4 Explain deadlock recovery and deadlock prevention. **6**

5 Answer in brief : (any **four**) **12**

- (i) Monitors
- (ii) Message passing
- (iii) Paging
- (iv) Segmentation
- (v) File types
- (vi) Distributed systems