



(Pages : 2)

A – 3840

Reg. No. :

Name :

**Seventh Semester B.Tech. Degree Examination, June 2016
(2008 Scheme)**

08-704 Elective – III (c) : MODERN OPERATING SYSTEMS (E)

Time : 3 Hours

Max. Marks : 100

Instruction : Answer all questions from Part – A.

PART – A

1. Enlist the system calls for process management.
2. Define turn around time and waiting time.
3. Explain the state transition diagram of a process.
4. What is swapping ?
5. Explain clock page replacement algorithm.
6. How does working set model handles thrashing ?
7. What is Belady's anomaly ?
8. What is the need of I/O device controller ?
9. What are file attributes ?
10. What is RAID disks ?



(10×4=40 Marks)

PART – B

Any one question from each Module.

Module – I

11. a) Explain the role of O.S. as resource manger and extended machine. **10**
- b) What are the different ways of handling dead locks ? Explain. **10**

OR

P.T.O.



12. a) Differentiate between a process and thread. 8
b) Compare the operation of semaphore and mutex in handling the critical section. 12

Module - II

13. a) What is virtual memory ? How it is implemented ? 8
b) A process references 5 pages, A, B, C, D and E in the order A, B, C, D, A, B, E, A, B, C, D, E. Assuming the replacement algorithms as FIFO, LRV, OPT. Find out number of page fault starting with an empty main memory with '3' page frames. 12

OR

14. a) Explain the following memory management schemes.
a) Mono programming without swapping. 12
b) Multiprogramming with fixed partitions. 8
b) What is relocation and protection ? 8

Module - III

15. a) Explain various disk arm scheduling algorithms. 12
b) What is the need of I/O device controller ? 8

OR

16. a) Explain the different file allocation methods. 10
b) What are the different directory structure ? Explain. 10
-