

U2-16  
(Please write your Exam Roll No.)

Exam Roll No. ....

# END TERM EXAMINATION

SIXTH SEMESTER [B.TECH./M.TECH.] MAY- JUNE 2016

Paper Code: IT-310

Subject: Operating System Design  
Concepts

Time: 3 Hours

Maximum Marks: 60

Note: Attempt any four questions including Q.no1 which is compulsory.

- Q1 Differentiate between:- (5x4=20)
- (a) Context switch and process switch
  - (b) Internal fragmentation and External fragmentation
  - (c) Disk scheduling and CPU scheduling
  - (d) thread and Process
- Q2 Explain the various CPU scheduling algorithm with example. (10)
- Q3 What is Demand paging? How can virtual memory concept be implemented using Demand paging? Describe the process of demand paging in OS. (10)
- Q4 Describe the ways of implementing Semaphores. How is Semaphores different from Critical Section? (10)
- Q5 Discuss the various methods for Deadlock detection. Explain using examples. (10)
- Q6 (a) Discuss the structure of Process control Block (PCB). (5)  
(b) Explain the necessary and sufficient condition for Deadlock. (5)
- Q7 Discuss the advantages and disadvantages of WINDOWS XP and WINDOWS 2000 operating system. (10)
- Q8 Write short notes on any two:- (5x2=10)
- (a) File allocation method
  - (b) Working Set module
  - (c) Producer Consumer infinite buffer problem and its solution.
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