PVP 12

Code: CS5T1, EM5T4

III B.Tech - I Semester – Regular Examinations - November 2015

OPERATING SYSTEMS
(Common for CSE & ECM)

Duration: 3 hours Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1 a) Distinguish between serial processing and simple batch processing. 7 M

b) Give a note on computer system organization and Architecture. 7 M

2 a) List the services provided by operating systems. Explain the structure of OS. 7 M

b) Define process. What do you mean by co-operating processes? Give a note on IPC. 7 M

3 a) Explain user and kernel threads in detail. 7 M

b) Explain the calculation of waiting time in Round Robin scheduling algorithm with example. 7 M

4 a) What is a semaphore? What are the various operations defined on it? 7 M

b) What is the difference between week semaphore and strong semaphore? Explain. 7 M

5 a) Explain Banker's algorithm for Deadlock avoidance with example. 7 M

b) Explain the steps involved in deadlock recovery. 7 M

6 a) Briefly explain memory management requirements. 7 M

b) Explain the use of translation look aside buffer with neat diagram. 7 M

7 a) What is paging? Explain page fault in detail. 7 M

b) Calculate the page faults for the given sequence of reference string assuming that the system uses LRU page replacement algorithm and it has 4 page frames. 7 M

8 2 4 0 3 2 0 5 6 2 1 7 4 2 0 1 3 2 6

8 a) Explain the file operations. 7 M

b) Explain any two disk scheduling Algorithms. 7 M