

Program: MCA (Batch2016-19), Sem-I Subject : Operating System

K.J. Somaiya Institute of Management Studies and Research

Program: MCA (Batch 2016-19), Sem-I
Subject : Operating System
End term Exam

Max Time : 2 hours

Max Marks: 50

Date : 28th Nov 2016

- N.B. : (1) All Questions carries equal marks.
(2) Question 1 is compulsory.
(3) Attempt any 4 questions from Q2 to Q7.

- (1) What is CPU scheduling? Explain FCFS, Non Preemptive SJF, SJF, RR CPU scheduling algorithms with the following data 10 M
- | Process | Arival Time | Burst Time |
|---------|-------------|------------|
| P1 | 0 | 8 |
| P2 | 1 | 10 |
| P3 | 2 | 2 |
| P4 | 3 | 5 |
- (2) What is deadlock? What are the necessary and sufficient condition for occurrence of deadlock also mention the methods of handling deadlock? 10 M
- (3) What is Readers Writers problem? Write Solution using semaphore implementation. 10 M
- (4) What is process? Explain Process states in process management in detail. 10 M
- (5) (a) What is thread? Explain various kinds of threads in detail 5 M
- (b) Under what circumstances do page faults occur? Describe the actions taken by the operating system when a page fault occurs. 5 M
- (6) (a) Write any 2 Disk scheduling algoritms ? 5 M
- i) SSTF ii) SCAN iii) C- SCAN
- (b) Explain different levels of RAID 5 M
- (7) Write short notes on any 3 of the following 10 M
- (a) Process Control Block(PCB)
 - (b) Buffering
 - (c) Semaphore
 - (d) Context Switching
 - (e) Monitors

-----End of Paper-----