

3087

B.Tech. (CSE) 4th Semester (G-Scheme)
Examination, July-2022
OPERATING SYSTEM
Paper- PCC-(CSE-206-G)

Time allowed : 3 hours]

[Maximum marks : 75

Note : Attempt any five questions in all. Question number 1 is compulsory. Select one question from each section.

1. (a) What is the difference between multitasking and multiprogramming operating system?
- (b) What is critical section problem?
- (c) What is a Process? Explain state transition diagram.
- (d) What is contiguous memory allocation?
- (e) What is context switching?
- (f) What is Scheduler in operating system? $6 \times 2.5 = 15$

Section - A

2. What is operating system? Explain different types of operating system. 15
3. What is Process Scheduling? What is the Scheduling criteria for SRTF and Round Robin Scheduling? 15

Section - B

4. What is Semaphores? Implement Readers-Writers problem using Semaphores. 15
5. What is deadlock? What are the conditions to Prevent deadlock in system? 15

Section - C

6. What is Paging? Describe various page replacement algorithm? 15
7. (a) What is memory management? Explain Contiguous and Non-Contiguous memory allocation? 8
- (b) Explain Internal and External fragmentation with example. 7

Section - D

8. What is File management system in operating system? Explain all File access methods. 15
9. What is Disk scheduling? Explain FCFS, SSTF Scan and C-Scan disk scheduling algorithm with example? 15