

4TH SEM. / CSE/IT / 2022(S)

Th-1 Operating System

Full Marks: 80

Time- 3 Hrs

Answer any five Questions including Q No.1 & 2
Figures in the right hand margin indicates marks

1. Answer **All** questions 2 x 10
 - a. Define Process Synchronization.
 - b. What is Demand Paging?
 - c. What is the significance of using semaphore?
 - d. What is Page Fault?
 - e. Write the difference between program & process.
 - f. What is Fragmentation?
 - g. What are the objectives of operating system?
 - h. What is Belady's anomaly?
 - i. What do you mean by job scheduling?
 - j. What is context switching?
2. Answer **Any Six** Questions 6 x 5
 - a. What is Deadlock? Explain the necessary conditions for deadlock?
 - b. What is Round Robin Scheduling algorithm? Explain with example.
 - c. Explain different File allocation methods briefly.
 - d. Compare the FCFS and SJF scheduling algorithm with respect to following.
 1. Turn Around Time
 2. Waiting TimeExplain with suitable example.
 - e. Explain Banker's algorithm for deadlock prevention.
 - f. Define the following.
 1. Swapping
 2. Virtual Memory
 - g. Write short note on paging.
3. What are the functions of a Compiler? Explain briefly the seven phases of compiler. 10
4. What are the different page replacement algorithms available in operating system? Explain with example. 10
5. Explain different memory allocation techniques. 10
6. Explain different types of Scheduler with suitable diagram. 10
7.
 - i) Explain SPOOLING with diagram. 10
 - ii) Explain demand paging.