

M.C.A. Semester:- 3 Examination

Paper Code: 3606

Operating System Principals

Time: 02:30 Hours

Marks: 70

Q1 Answer any FIVE from the following: [10]

- a. What are the types of operating system?
- b. Define user and kernel thread.
- c. What is logical and physical address?
- d. Define : CPU Bound.
- e. What do you mean by process?
- f. What is bit vector?
- g. Give advantages and disadvantages of priority CPU scheduling algorithm

Q2 Answer any FIVE from the following: [15]

- a. Define file access methods
- b. Explain the criteria for deadlock arise?
- c. List out CPU scheduling criteria.
- d. Explain free space management
- e. What is swapping?
- f. What are the advantages and disadvantages of contiguous memory allocation?
- g. Explain multiprocessing.

Q3 Answer any FIVE from the following: [25]

- a. What do you mean by segmentation?
- b. Write a note on Process Control Block.
- c. What is paging? What are the advantages of it?
- d. Explain SJF CPU scheduling algorithm with example.
- e. Discuss real time system with its advantages and disadvantages.
- f. Explain FIFO disk scheduling algorithm with proper example.
- g. Why page replacement is required?

Q4 Answer any TWO from the following: [20]

- a. What do you mean by virtual memory? Explain virtual memory allocation with example.
- b. Write and explain bankers algorithm.
- c. Discuss various file access methods.