

**FIFTH SEMESTER B.TECH DEGREE EXAMINATION
08.505 OPERATING SYSTEMS**

Time: Three Hours

Maximum: 100 Marks

PART A

(Answer all questions)

1. Explain the features of real time operating system.
2. What is the purpose of the command interpreter?
3. What are the activities of an operating system in regard to file management?
4. Explain the criteria for choosing a CPU scheduling algorithm
5. Differentiate segmented paging and paged segmentation addressing schemes
6. Differentiate deadlock and starvation
7. What is a semaphore?
8. What is the importance of protection in operating system?
9. What is thrashing? How can this be eliminated?
10. Write short notes on sector queuing?

(10 x 4 =40 marks)

PART B

Module I

11. a) Briefly explain OS services
b) Compare and contrast multi programming & time sharing operating system

OR

12. a) Which are the operation allowed to files
b) Explain file allocation methods.
c) Explain various file system services

Module II

13. a) Discuss demand paging scheme for memory management
b) Consider the following set of processes with the given CPU burst time and arrival time.

Process	Arrival Time	Burst time
P1	0.0	8
P2	0.4	4
P3	1.0	1

What is the average turnaround time for these process with FCFS scheduling algorithm and SJF scheduling algorithm

OR

14. a) What are the action taken when page fault occurs
b) Define critical section problem
c) Describe the non-preemptive CPU scheduling algorithm

Module III

15. a) Compare various disk scheduling algorithm
b) Explain above deadlock avoidance & prevention

OR

16. a) Explain dynamic protection structures
b) Various measures to improve security to operating system – Explain.

(3 x 20 = 60 marks)

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