

**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