

D 12068

Name

Reg. No.

**FIFTH SEMESTER B.TECH. (ENGINEERING) [14 SCHEME] DEGREE EXAMINATION, NOVEMBER 2016**

**CS/IT 14 503—OPERATING SYSTEMS**



Time : Three Hours

Maximum : 100 Marks

**Part A (Short Questions)**

1. Differentiate the working of the pre-emptive and non pre-emptive processes.
2. Write short notes on operating system services.
3. Discuss in detail about system programs.
4. List the features of process scheduling in multiprogramming scheduler.
5. What are the criteria recommended for evaluating CPU scheduling algorithms ?
6. Define the difference between pre-emptive and non-preemptive scheduling.
7. Distinguish between internal and external fragmentation.
8. Mention the various criteria of disk scheduling.
9. What is the need for disk scheduling ? What are the advantages of multiprocessor system ?
10. Write short notes on Principles of Protection.

(8 × 5 = 40 marks)

**Part B (Descriptive)**

11. Describe about Distributed Systems and Special-Purpose Systems.  
*Or*
12. Discuss in detail about Memory Management and Storage Management.
13. Explain the various process scheduling algorithms used with appropriate examples.  
*Or*
14. Discuss the concept of semaphores with an example.
15. Discuss in detail about file system structure and file system implementation.  
*Or*
16. Write in detail about the working of Virtual memory.
17. State the different disk scheduling algorithms and describe it in detail with examples.  
*Or*
18. Discuss in detail about Fire-walling to Protect Systems and Networks.

(4 × 15 = 60 marks)