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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech II Year II Semester Supplementary Examinations July-2021****OPERATING SYSTEMS**

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 60

PART-A

(Answer all the Questions 5 x 2 = 10 Marks)

- 1 a Define System calls. 2M
- b Define Thread. 2M
- c What is critical section problem? 2M
- d What are swabbing? 2M
- e What is meant by File pointer? 2M

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

- 2 a Explain about the dual mode operation in OS with a neat block diagram. 5M
- b What is operating system? Explain multiprogramming and time-sharing systems. 5M

OR

- 3 a Explain different types of system calls with suitable example. 5M
- b What are the functionalities of Operating Systems? Explain in detail 5M

UNIT-II

- 4 Evaluate Round CPU Scheduling algorithm for given Problem. 10M
Time slice = 3 ms.

Process	P1	P2	P3	P4
Process time	10	5	18	6
Arrival time	5	3	0	4

OR

- 5 a With a neat sketch explain process state diagram. 5M
- b Write about Threads? 5M

UNIT-III

- 6 What is critical section problem? Explain with example. 10M

OR

- 7 a Explain about Deadlock Avoidance. 5M
- b Explain how recovery from deadlock. 5M

UNIT-IV

- 8 a What is Segmentation? Explain with Example. 6M
- b Explain about Paging. 4M

OR

- 9 a What is virtual memory? Discuss the benefits of virtual memory techniques. 5M
- b Write short notes on Disk management. 5M

UNIT-V

- 10 a Discuss about File type. 5M
- b Explain about File operation. 5M

OR

- 11 a Write short notes on Directory Implementation. 5M
- b Explain File system Structure 5M

END