Reg. No: ☐☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year II Semester Supplementary Examinations February-2022
OPERATING SYSTEMS
(Computer Science & Engineering)

Time: 3 hours　　　　　　　　　　　　　　　　　　　　　　　　　　　Max. Marks: 60

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

1	a	What is an Operating system?	2M
	b	Define schedulers.	2M
	c	Define Dead lock.	2M
	d	What is a Page Tale?	2M
	e	What are the various operations performed in a file?	2M

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

UNIT-I

2	a	Explain Operating System Structures.	5M
	b	Explain System Programs.	5M

OR

3	a	Explain difference between Multitasking and Multi Programming.	5M
	b	Explain briefly User and Operating System Interface.	5M

UNIT-II

4	a	Define Process. Explain process State diagram.	5M
	b	Explain about process schedulers.	5M

OR

5	a	What are the criteria for evaluating the CPU scheduling algorithm?	5M
	b	What is a process? Explain Process Control Block.	5M

UNIT-III

6	a	What are the methods for handling deadlock?	5M
	b	Write about deadlock and starvation.	5M

OR

7	a	Discuss about the semaphore.	6M
	b	Write about a Monitor.	4M

UNIT-IV

8	a	Consider the following reference string 7,0,1,2,0,3,0,4,2,3,0,3,2,1,2,0,1,7,0,1. Assume there are three frames. Apply LRU replacement algorithm to the reference sting above and find out how many page faults are produced. Illustrate the LRU page replacement algorithm in detail and two feasible implementation of the LRU algorithm.	6M
	b	Discuss about Swapping.	4M

OR

9	a	Write a short note ob Demand paging and Thrashing.	5M
	b	Explain about Page Replacement.	5M

UNIT-V

10	a	Explain the concept of file with Example.	5M
	b	Explain about access method with Example.	5M

OR

11	a	Explain about Grouping Free space management Technique.	5M
	b	Explain how directory can be Implemented using linear list.	5M

END