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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech II Year II Semester Regular Examinations July-2021

OPERATING SYSTEMS

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1 Define operating system? Explain the various types of operating systems. L1 12M

OR

2 a Write the difference between monolithic kernel and micro kernel. L3 6M

b Determine briefly about concept of virtual machines. L5 6M

UNIT-II

3 a Define Process. Describe process State diagram. L1 6M

b Explain about process schedulers. L2 6M

OR

4 Examine in detail about Inter Process Communication L4 12M

UNIT-III

5 Define process synchronization and explain Peterson solution algorithms L1 12M

OR

6 a List various methods for handling deadlock. L4 6M

b Write about deadlock and starvation. L3 6M

UNIT-IV

7 Given page reference string: 1,2,3,2,1,5,2,1,6,2,5,6,3,1,3,6,1,2,4,3. Compare the number of page faults for LRU, FIFO and Optimal page replacement algorithm. L5 12M

OR

8 a What is virtual memory? Discuss the benefits of virtual memory techniques. L1 6M

b Write a short note on Disk management. L3 6M

UNIT-V

9 a Examine common file types. L4 6M

b List various types of file operations. L4 6M

OR

10 Briefly explain indexed and Linked list free space management technique. L2 12M

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