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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

M.Tech I Year I Semester Regular Examinations Jan 2020

REAL TIME OPERATING SYSTEMS

(Embedded Systems)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Explain the overview of Threads and Tasks. 6M
b Draw the structure of Micro kernel and explain in brief. 6M

OR

- 2 Discuss how kernel plays an important role in the Operating systems. 12M

UNIT-II

- 3 a Explain the Process control phenomenon based on different UNIX commands. 6M
b What is meant by semaphore? Mention few advantages of shared memory. 6M

OR

- 4 Illustrate three examples for specifying hard time constraints. 12M

UNIT-III

- 5 a What are different temporal parameters of real time systems during workload? 6M
b With a neat sketch, explain periodic task model of real time systems. 6M

OR

- 6 a Specify Precedence graph and Task graph. 6M
b Write a few words about Data Dependency. 6M

UNIT-IV

- 7 a Explain Schedule mechanism of real time operating systems. 6M
b What is meant by time services? How those are helpful in operating function? 6M

OR

- 8 a Describe Hardware and software interrupt priorities. 6M
b Write short note on Precedence constraints and data dependency. 6M

UNIT-V

- 9 a Explain how process management will be done in RTLinux 6M
b Explain the Salient features of Semaphore. 6M

OR

- 10 a FortaskPriorityfunctiondefine3optionsonspawning. 6M
b Describe memory related functions of MUCOS. 6M

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