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

B.Tech IV Year II Semester Supplementary Examinations May-2022

REAL TIME OPERATING SYSTEMS

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a What is the need for Real Times systems? Explain with examples. L1 6M
b What are the specifications requirements in real time systems? L1 6M

OR

- 2 a Explain various Modeling /verifying tools used for the development of Real time systems. L2 6M
b Discuss working of ATM with help of UML Tool. L6 6M

UNIT-II

- 3 What is partitioning? Explain need for partitioning in real time systems. L1 12M

OR

- 4 a Define interrupts? Explain about different types of Interrupts with an example L1 6M
b Explain in brief about the interrupt vector table (IVT) in embedded systems. L2 6M

UNIT-III

- 5 Explain the architecture of Real Time systems with neat sketch. L2 12M

OR

- 6 a Explain the architecture of Real Time systems with neat sketch. L2 6M
b Explain need of communications in real time systems. L2 6M

UNIT-IV

- 7 a What is RTOS? Give one practical example where RTOS is used? L1 5M
b What are the Characteristics of Real time operating Systems? Explain it. L1 7M

OR

- 8 a Explain how interrupt routines handled in embedded system. L2 6M
b Explain process management and memory management in embedded system. L2 6M

UNIT-V

- 9 a How effective release times and deadlines are useful in real time scheduling? L1 6M
b Explain in brief about Clock driven, weighted round robin and priority driven approaches. L2 6M

OR

- 10 a What is Task synchronization? Explain it. L1 6M
b What is the role of Semaphores? Explain about Functions of semaphores. L1 6M

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