Code No: 138EK

R16

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year II Semester Examinations, September - 2020
REAL-TIME SYSTEMS
(Common to CSE, IT)

Time: 2 Hours **Max. Marks: 75**

Answer any Five Questions
All Questions Carry Equal Marks
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1.   Discuss briefly on various commands used for process management in UNIX.   [15]

2.   Define a semaphore. Discuss different types of semaphores supported by RTOS kernel.
        [15]

3. a)   Define a signal. State its importance.
   b)   Give a detail description of signal control block and explain various operations of it.
        [5+10]

4.a)   Describe in detail about spurious interrupts and how to handle them.
   b)   Enumerate the steps in servicing a Timer Interrupt.   [7+8]

5.   Draw the block diagram of Automatic Chocolate Vending Machine System (ACVM) and explain its functional block diagram and uses.   [15]

6.   Discuss briefly on various commands used for Text processing in UNIX.   [15]

7.   Explain how Round-Robin scheduling work with an illustrative example in RTOS.
        [15]

8.   Explain typical operations and uses of Pipe object with an illustrative example.   [15]

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