Code No: R194104K **R19** Set No. 1

IV B.Tech I Semester Advance Supplementary Examinations, March - 2023
EMBEDDED SYSTEMS
(EXCEPT FOR ECE)
(Open Elective)
Time: 3 hours Max. Marks: 75
Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks
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UNIT-I

1 a) Discuss in detail any three characteristics embedded system [7]
   b) What is Domain-specific embedded system and explain with example [8]
   (OR)
2 a) What is the role of embedded system present life? Discuss major application areas of embedded systems. [7]
   b) Discuss below Operational Quality attributes of embedded systems
      i)   Safety
      ii) reliability [8]

UNIT-II

3 a) What are serial communication devices? Explain. [7]
   b) What are the modes of UART serial bit connected to RS232 port? [8]
   (OR)
4 Explain different types of Wireless devices [15]

UNIT-III

5 a) Define an interrupt and Classify it. [7]
   b) Explain briefly about Mixing Assembly and high level language [8]
   (OR)
6 Discuss in detail about Embedded Firmware design approaches [15]

UNIT-IV

7 a) What are the difference between OS and RTOS? [8]
   b) Define Tasks, Process and Thread [7]
   (OR)
8 Explain in detail about any two non pre-emptive scheduling algorithms [15]

UNIT-V

9 a) Draw and explain the integrated embedded system development environment [7]
   b) Explain the advantages and limitations of simulator based debugging [8]
   (OR)
10 a) Compare various Laboratory tools used for embedded system implementation and testing [7]
   b) With neat sketches of diagram explain about the interpretation. [8]