

Total No. of Questions : 12]

SEAT No. :

**P3957**

**[5462] - 681**

[Total No. of Pages :2

**M.E. (Computer Engineering)**

**EMBEDDED AND REAL TIME OPERATING SYSTEM**

**(2017 Pattern) (Semester-I) (510104)**

*Time : 3 Hours]*

*[Max. Marks :50*

*Instructions to the candidates:*

- 1) *Attempt Q.No1 or Q.No2, Q.No3 or Q.No4, Q.No5 or Q.No6, Q.No7 or Q.No8, Q.No9 or Q.No10, Q.No11 or Q.No12.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

**Q1)** Explain with diagram different characteristics of embedded systems. **[8]**

OR

**Q2)** Explain the need of watchdog timer and reset after the watched time. **[8]**

**Q3)** Describe build process for embedding software. **[8]**

OR

**Q4)** Explain embedded system design technologies. **[8]**

**Q5)** Describe and compare RS232C and SDIO Devices. **[9]**

OR

**Q6)** Explain types of serial communication with examples. **[9]**

**Q7)** How precedence constraint decides in real time tasks? Explain. **[8]**

OR

**Q8)** What are the function parameters and resource of real time process? Explain in brief. **[8]**

**P.T.O.**

**Q9)** Explain shared data problem while handling interrupts in detail. **[8]**

OR

**Q10)** What are the advantage and disadvantage of disabling interrupts during the running of a critical section of a process? Explain. **[8]**

**Q11)** Describe the features of QNX Neutrino. **[9]**

OR

**Q12)** Explain the process for developing embedded software. **[9]**

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