

Total No. of Questions :6]

SEAT No. :

P85

OCT. -16/BE/Insem. - 140

[Total No. of Pages :2

B.E. (E & Tc)

EMBEDDED SYSTEMS & RTOS
(2012 Pattern) (Semester - I) (Elective - I)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary.*

Q1) a) Explain the following design metric power size. **[5]**

b) Explain the characteristics of Embedded system. **[5]**

OR

Q2) a) Explain waterfall model with a neat diagram. **[5]**

b) Explain the various stages involved in design process. **[5]**

Q3) a) Explain the concept of Foreground / Back ground systems. **[5]**

b) Define task. Draw and explain task state diagram. **[5]**

OR

Q4) a) Explain Round Robin scheduling algorithm. **[5]**

b) What is priority inversion? How does it help to improve the performance of Embedded system. **[5]**

P.T.O.

- Q5)** a) Explain the features of Mucos II RTOS. [5]
b) Explain any two task related functions. [5]

OR

- Q6)** a) Explain the following functions related to mailbox [5]
i) OSM box Create ()
ii) OSM box Pend ()
b) What is intertask communication? Explain the following functions [5]
i) OS sem Post ()
ii) OS sem Accept ()

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