

Total No. of Questions : 6]

SEAT No. :

P135

[Total No. of Pages : 2

Oct/BE/Insem - 60
B.E. (Electronics)
EMBEDDED SYSTEM AND RTOS
(2012 Pattern) (Semester - I) (Elective - I)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer questions from Q1 or Q2, Q3 or Q4, Q5 or Q6.*
- 2) *Neat diagram must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of logarithmic tables, Slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
- 5) *Assume suitable data if necessary.*

Q1) a) What is time to market? Draw & explain revenue model with delayed entry. Calculate losses due to delayed entry by 4 & 8 weeks. Assume product life to be 52 weeks. **[5]**

b) Compare spiral model & waterfall model. **[5]**

OR

Q2) a) Explain the design steps involved of adaptive cruise control of vehicle of an embedded system. **[5]**

b) Define embedded system. Explain classification & characteristics of an embedded system. **[5]**

Q3) a) Define context switching. What are the steps involved in μ cos II context switching? **[5]**

b) Define Interprocess Communication and Synchronization. **[5]**

OR

Q4) a) What is the difference between pre-emptive and non-preemptive kernel. **[5]**

P.T.O.

- b) What do you understand by the term "Clock Tick" in RTOS? Explain the time management function in μ cos II. [5]

Q5) a) Explain any three task scheduling algorithm. [5]

- b) Explain any three task management function of μ cos II. [5]

OR

Q6) a) Define [5]

- i) Interrupt Latency
- ii) Interrupt Response
- iii) Recovery Time

- b) Draw the diagram of task states. Explain each state. [5]

