

Total No. of Questions : 6]

SEAT No. :

P4947

[Total No. of Pages :2

BE/In Sem. - 42

B.E. (E & TC)

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

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 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. Time to market, Unit cost. **[5]**

b) Explain Embedded processor technology. **[5]**

OR

Q2) a) Explain V-shape model. **[5]**

b) Explain the following design metric NRE cost, size. **[5]**

Q3) a) Explain the following. **[5]**

i) Non Preemptive kernel

ii) Preemptive kernel

b) Explain Mutual Exclusion. **[5]**

OR

Q4) a) What is Deadlock? When it occurs? **[5]**

b) What is multitasking? Explain the advantages of multitasking. **[5]**

P.T.O.

- Q5)** a) Explain any two task related functions. [5]
- b) Explain the following time related functions. [5]
- i) OSTime Dly ()
- ii) OSTime Dly HMSM ()

OR

- Q6)** a) What is semaphore? How does it help in resource sharing in RTOS kernel. [5]
- b) Explain the following functions related to message Q. [5]
- i) OSQ Create ()
- ii) OSQ Pend ()

