Total No. of Questions : 10]

SEAT No. :

P3047

[Total No. of Pages : 2

[5154]-615

B.E. (Electronics & Telecommunication)

EMBEDDED SYSTEM & RTOS

(2012 Course) (Semester - I) (Elective - I)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q.No.1 or Q.No2, Q.No.3 or Q.No.4, Q.No.5 or Q.No.6, Q.No.7 or Q.No.8, Q.No.9 or Q.No.10.***
2) ***Figures to the right indicate full marks.***
3) ***Neat diagram must be drawn wherever necessary.***
4) ***Use of non programmable electrronics pocket calculator is allowed.***
5) ***Assume suitable data, if necessary.***

Q1) a) Explain features of embedded system and classify them with example. **[5]**

b) Explain various processor technologies in design of embedded processors. **[5]**

OR

Q2) a) Explain difference between V model and Water fall model of software design. **[5]**

b) Explain design metrics with respect to camera as embedded system. **[5]**

Q3) a) Explain kernel architecture & configuration for RTOS. **[5]**

b) Explain the importance of clock tick in function RTOS. Explain the time management functions in μC/OS-II. **[5]**

OR

Q4) a) What do you mean by task communication & explain various IPC techniques. **[5]**

b) Explain OSMailboxCreate( ) and OSMailboxPost( ) function. **[5]**

P.T.O.

Q5) a) Compare BIOS with boot loader in embedded system. **[8]**

b) Explain tracing & profiling tools. **[8]**

OR

Q6) a) List and explain various file systems used in Embedded Linux. **[8]**

b) What is binary utilities? Discuss miscellaneous binary utilities. **[8]**

Q7) a) Define software testing. Explain various level of testing. **[8]**

b) Explain concept of loadable device driver for Linux kernel. **[8]**

OR

Q8) a) Draw and explain Linux kernel architecture. **[8]**

b) Discuss different Linux file systems. **[8]**

Q9) a) Explain the use of ICE for testing embedded system with diagram. **[9]**

b) Explain mobile phone with its hardware & software requirements. **[9]**

OR

Q10)a) Explain embedded system hardware & software requirements in automatic chocolate vending machine. **[9]**

b) Explain GNU debugger. What is hardware assisted debugging? **[9]**