Name : .....

Roll No. : .....

Invigilator's Signature : .....

CS/M.TECH (CSE)/SEM-1/MCSE-102/2010-11

2010-11
DISTRIBUTED REAL TIME OPERATING SYSTEM

Time Allotted : 3 Hours *Full Marks* : 70

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Answer any *five* questions. 5 × 14 = 70

1. a) What are the differences between Real time database and Standard database ?

   b) Which disadvantages can the employment of RT Database bring with itself ?

   c) What special requirement leads to the development of RT Database ? 14

2. Explain with the help of diagrams three types of Communication Network. 14

3. a) Explain QOS parameters in communication medium.

   b) Compare Soft *vs.* Hard Real Time Communications in terms of Protocols used. 14

4. Compare any three Real Time Operating System in terms of given parameters : 14

Name of the OS			
Scheduler			
Synchronization Mechanism			
POSIX Support			
Scalable			
Custom HW Support			
Kernel Size			
Multiprocessor Support			

5. What is Real Time Scheduling ? What are the different types of Real Time Scheduling ? Explain the different types of Event Driven Scheduling Algorithms with examples. 1 + 3 + 10
6. A System has three processes P0, P1 and P2 with total executing time 10ms, 20ms and 30ms. Every process has first 10% I/O, next 70% cpu and last 20% I/O. Assume all the processes arrived at t = 0 and used SRTF algorithm. Calculate the turnaround time, waiting time and percentage of time cpu is idle. 14
7. Explain p-Thread Scheduling supported by Vxworks with pseudo code. 14