Roll No. | | | | | | | | | | | | | Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(Emb.Sys) (2016 & Onwards) (Sem.–2)

REAL TIME OPERATING SYSTEM

Subject Code : MTED-202

Paper ID : [74269]

Time : 3 Hrs. Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT Questions.**
2. **Each question carries TWENTY marks.**

1. What is cooperative scheduling and list advantages and disadvantages?

   a) How memory is allocated in Linux?

   b) Describe role of memory manager while executing program(i mean to run/execute a program written by user, what memory manager service will come into picture)

2. Explain paging with example. Paging scheme uses a Translation Look-aside Buffer (TLB). A TLB-access takes 10 ns and a main memory access takes 50 ns. What is the effective access time(in ns) if the TLB hit ratio is 90% and there is no page-fault?

3. How does the kernel handle its own memory? What's the difference between kernel memory and user memory? What is shared memory?

4. Write a shell script to sort an array using insertion sort. Discuss the use of CHMOD CHOWN commands?

5. Discuss the structure of Real Time Systems. What are the various types of Real Time Operating System?

6. State IPC paradigms and implementations.

7. What is Deadlock? Discuss Deadlock Prevention and avoidance.

8. Discuss the concept of module in Linux. How to link module to Linux kernel?