R09

Code No: C3810, C7010

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS APRIL/MAY-2012
EMBEDDED REAL TIME OPERATING SYSTEMS
(COMMON TO DIGITAL ELECTRONICS & COMMUNICATION SYSTEMS, ELECTRONICS & COMMUNICATION ENGINEERING)

Time: 3hours **Max.Marks:60**

Answer any five questions
All questions carry equal marks

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1.a) Write the commands used to handle processes in Unix
b) Explain the directory structure in Unix operating system.

2.a) Define release time jitter, sporadic and resource graph. Give examples.
b) Explain the various resource parameters of jobs in detail.

3.a) Describe the weighted round-robin scheduling approach with example.
b) Briefly describe the greedy scheduling approach for real time applications.

4.a) Describe the external interrupts and Immediate interrupt service.
b) Explain the queue structure for EDF scheduling approach.

5.a) Explain the memory management tasks handled in Vxworks.
b) How concurrency is handled in Vxworks using semaphores?

6.a) Describe the pipes and its usage in interprocess communication.
b) Differentiate between the data and temporal dependencies and its effects.

7.a) Discuss the phases of periodic tasks in time services.
b) What is fixed priority scheduling? Explain with example.

8. Write short notes on:
a) Hard and soft real time systems.
b) Offline and Online scheduling mechanism.

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