R09

Code No: C5502

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I - Semester Examinations, March/April -2011
EMBEDDED REAL TIME OPERATING SYSTEMS
(EMBEDDED SYSTEMS)

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

Answer any five questions
All questions carry equal marks

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1. a) Write the function of the following:
i)lseek ii) vfork iii) waitpid iv) pend v) fwrite vi) OSSemPost ( ) [12]

2. a) What is RTOS? Give one practical example where RTOS is used.
b) Briefly describe the Hard Real Time Systems. [12]

3. (a) Write about the Periodic Task model?
(b) Describe the scheduling Hierarchy of Real Time Systems. [12]

4. (a) Differentiate the weighted Round Robin and Priority driven approaches?
(b) Explain the inter-process communication of RTOS. [12]

5. (a) Describe the Hardware and Software interrupt priorities.
(b) Distinguish between the features of MUCOS and Vx Works RTOS. [12]

6. (a) List the layers between application and hardware of RTOS.
(b) Give examples of IO subsystems. Explain the use of asynchronous I/Os. [12]

7. (a) Explain off line and online scheduling policies.
(b) Describe Memory allocation related functions of MUCOS. [12]

8. Explain the case study of an ES design for a Smart Card. [12]

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