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Code No: A5804

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY-2012

OPERATING SYSTEMS

(COMPUTER SCIENCE & ENGINEERING)

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

Answer any FIVE questions

All questions carry equal marks

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1. Distinguish the following OS types:
   a. Batch
   b. Time-shared
   c. Distributed
   d. Real-time

2. a) Write about Process Control Block and Process state diagram.
   b) Distinguish the CPU scheduling in general-purpose computers from Real-time Scheduling through examples.

3. a) Explain the logical memory concept of paging scheme.
   b) Illustrate the Page Replacement algorithm – LRU.

4. a) Explain the different disk-file allocation methods.
   b) Distinguish the various free-space management techniques.

5. a) Write about characterization of Deadlocks
   b) Briefly discuss the Deadlocks-handling approaches.

6. a) Explain the Critical Section Problem (CSP) through an illustration.
   b) Write any one software solution to CSP.

7. Explain the various design issues of Distributed Systems.

8. Write short notes on:
   a. Bully algorithm
   b. ATM networks

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