

**Code No: F3303****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.C.A – III Semester Examinations –January -2011****LINUX PROGRAMMING****Time: 3hours****Max. Marks: 60****Answer any Five questions****All questions carry equal marks****- - -**

1. Write about Directory handling system calls? (Give syntax and examples).
2. What is pipe? What are the differences between named and unnamed Pipes?  
Write a program that uses a pipe to allow the parent process to read a message from its child.
3. a) What are Berkely sockets? And write a note on 'socket options'.  
b) Explain socket system calls for connection oriented protocol.
4. Write a C program that demonstrates redirection of standard output to a file.Ex: ls > f1.
- 5.a) Write about shell meta characters .  
b) Write a shell script (small calculator) that adds, subtracts, multiplies and divides the given two integers. There are two division options: one returns the quotient and the other returns reminder. The script requires 3 arguments: The operation to be used and two integer numbers. The options are add (-a), subtract (-s), multiply (-m), quotient (-c) and reminder (-r).
6. Write a C program that displays the real time of a day every 60 seconds, 10 times.
7. Write short notes on the following.
  - a) POSIX thread API's
  - b) Linux API's for message queues
  - c) FIFO's
- 8.a) Write a C program to create a zombie process .  
b) Write a C program to list for every file in a directory, its inode number and file name.

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