JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, May/June - 2013
Linux Programming
(Computer Science and Engineering)

Time: 3 Hours   Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks
- - -

1.a) Write in detail on the file name expansion features provided in bash with examples.
 b) Write in detail on the here documents feature provided in bash with examples.
 c) Write briefly on sed, chmod, df, comm, fgrep and sort commands with examples.
                                                                                                    [15]

2.a) Write in detail on how debugging can be done in running shell scripts.
 b) Write briefly on case control structure in bash with examples. Write briefly on "||" operator in bash.
 c) Write in detail on the features of test command.   [15]

3. Write a C program to print all the filenames with inode numbers recursively in a directory whose name is given with command line argument using directory system calls?

4.a) Write a C program to print the numbers from 1 to 10 with a time interval of 1 second using alarm and signal system calls.
 b) Write a C program to create a zombie process and print process details using ps command.   [8+7]

5.a) Write a C program to create a shared memory and store username and mobile number details.
 b) Write a C program to use the shared memory created by the above program and print the mobile number of a given username by searching the shared memory.
                                                                                                    [8+7]

6.a) Write in detail on kernel data structures for semaphores.
 b) Write in detail on kernel data structures for shared memory.   [8+7]

7.a) Write briefly on POSIX threads.
 b) Write briefly on Thread synchronization with semaphores.   [8+7]

8. Write a C program to implement echo server and echo client on port number 1234 using connection oriented system calls.   [15]

--ooOoo--