S.10

Code No: 9A12601/R09

B.Tech. III Year II Semester Regular & Supplementary Examinations SET NO-3

April/May - 2013

LINUX PROGRAMMING

(Information Technology)

Time: 3 Hours Max. Marks: 70

*Answer any **FIVE** Questions*

*All Questions carry **Equal** Marks*

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1. (a) How will you remove blank lines from a file using,
   (i) grep
   (ii) sed.
   (b) Distinguish between a wild card and regular expression.
   (c) Find out the occurrence of three consecutive and identical word characters (like mmm or nnn) by using sed.

2. (a) With the help of syntax and example, explain the case condition in shell programming.
   (b) Write a shell script to demonstrate the various arithmetic operators supported by shell.

3. (a) What system calls are used to retrieve the file attributes of a given file? Explain them in detail.
   (b) Discuss in detail about the access function available in Unix.

4. (a) Explain the importance of alarm signal in Unix programming.
   (b) List the advantages of creating a new process.
   (c) Write short notes on unreliable signals.

5. (a) Explain with the help of neat sketch the client/server interaction by using semaphores.
   (b) Write a program that attaches shared memory too close to the end of its stack.

6. (a) Discuss in detail about the role of message queues in interprocess communication
   (b) Write short notes on kernel support for semaphores

7. Describe in detail about the following functions,
   (a) thr_create
   (b) thr_ join
   (c) thr_sigsetmask
   (d) pthread_create
   (e) pthread_detach.

8. (a) With the help of a neat sketch, explain the socket API calling sequence for server and client.
   (b) Explain the following socket system calls,
   (i) Accept
   (ii) Shutdown.