Code: 9F00303

MCA - III Semester Regular & Supplementary Examinations, January 2013
LINUX PROGRAMMING
(For students admitted in 2009, 2010 & 2011 only)

Time: 3 hours   Max Marks: 60

Answer any FIVE questions
All questions carry equal marks
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1 (a)   How does Linux differ from Unix? Discuss the features of Linux.
  (b)   Explain various text processing utilities, with a suitable example for each.

2 (a)   Discuss the responsibilities of a shell.
  (b)   Write a shell script to generate first 'n' prime numbers.

3 (a)   With a neat sketch, explain the Linux file system layout.
  (b)   Write the following in brief:
        (i) Record locking. (ii) System calls. (iii) Chmod.

4 (a)   How processing of states can be performed in Linux?
  (b)   Discuss any three system calls for process management and explain.

5 (a)   What is the difference between reliable and unreliable signals? Explain with
        suitable example.
  (b)   Write and explain the mechanism for handling a signal.

6 (a)   What is a pipe? Explain the process of calling a pipe.
  (b)   What is a message queue? Explain.

7 (a)   What is meant by synchronization? How synchronization is achieved with
        semaphores?
  (b)   Explain the structure of a thread. Discuss its uses.

8   Write and explain the program for client/server communication using sockets.

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