Code: 9F00303

MCA III Semester Supplementary Examinations May 2019

LINUX PROGRAMMING

(For 2009, 2010, 2011, 2012 (LC), 2013, 2014, 2015 & 2016 admitted batches only)

Time: 3 hours Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks

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1 (a) Explain various text processing utilities along with proper syntaxes and give suitable example for each.
(b) Write an awk script to find the number of characters, words and lines in a file.

2 (a) Write a shell script to delete duplicate files in the directory.
(b) Explain the control structures of shell in Linux with proper syntaxes.

3 (a) With a neat sketch, explain the Linux file system layout.
(b) Explain the file and the record locking in Linux.

4 (a) Draw and explain the structure of a typical process.
(b) Explain differences in using fork() and vfork() system calls.
(c) Write a program to create the zombie process.

5 (a) What is a signal? Discuss the signals SIGKILL and SIGSTOP with example.
(b) Explain the signal functions in detail.

6 (a) What is IPC? Explain it by using FIFO's.
(b) Explain how pipes are used as a standard input and output.
(c) Write a C program to illustrate two way communication using FIFOs.

7 (a) What is meant by synchronization? How synchronization is achieved with semaphores?
(b) Distinguish between threads and processes.

8 (a) What is a socket? Explain various data types used by the sockets interface.
(b) Explain the process of creating client/server communication in connection oriented model.

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