



Code: 9F00303

MCA III Semester Supplementary Examinations September/October 2014

LINUX PROGRAMMING

(For students admitted in 2009, 2010, 2011 and 2012 only)

Time: 3 hours

Max Marks: 60

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain briefly about text processing and process utilities in Linux.
(b) Write a short note on awk command.
- 2 (a) Define shell. Explain how a shell variable can be defined and initialized.
(b) Write a shell script to delete duplicate files in the directory.
- 3 (a) Describe the file system structure and different file types in Linux system.
(b) Compare hard links with soft links.
- 4 (a) Write a program to check the value of a volatile variable both in child and parent process and also list the differences in using fork () and vfork () system calls in the given program.
(b) Write a short note on kill () and raise () functions.
- 5 (a) What is a signal? Discuss the signals SIGKILL and SIGSTOP.
(b) What is the difference between reliable and unreliable signals? Explain with suitable examples.
- 6 (a) Explain the advantages of FIFOs over pipes.
(b) 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) Explain various multithreading models with suitable examples.
- 8 Explain briefly about the following socket API with syntax:
(a) socket.
(b) connect ().
(c) accept ().
(d) send ().

