MCA–20 A

Linux System Administration (Elective I)

Master of Computer Application (MCA–16/MCA–11)

Fifth Semester, Examination, 2017

Time : 3 Hours　　　　　　　　　**Max. Marks : 60**

Note : This paper is of **sixty (60)** marks containing **three (03)** sections A, B and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A
(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. Answer the following :

   (a) What are the fields in the /etc/passward file ?

   (b) Explain the file system hierarchy in Linux System.

   (c) How can you get/set an environment variable from a program ?

2. Answer the following :

   (a) Explain the structure of a Directory with inodes.

   (b) What is Process ? How would you find all the processes running on your computer ?

   (c) What is the main advantages of creating links to a file instead of copies of the file ?

3. Answer the following :

   (a) What command is used to list the contents of directory ?

   (b) Explain fork ( ) system call.

   (c) What are signals ? Explain the working of pause and abort signals.

4. Answer the following :

   (a) What are the contents of password files and where are they located ?

   (b) What are Shadow Passwords ?

   (c) How are groups managed in Linux ?

Section–B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. Explain Linux user security concept.
2. What is PID ?
3. What is a Login Shell ?
4. Explain process ID zero and process ID L.
5. Which command form or symbol is used to redirect output to a file ? Explain it.
6. Which command is used to read manual page for a given command ? Explain its syntax.
7. What are streams ? Explain I/O multiplexing.
8. Write a short note on IP Addressing. Explain IP Addresses.

Section–C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

1. The dmesg command :
   (a) Shows user login logoff attempts
   (b) Shows the syslog file for info messages
   (c) Kernel log messages
   (d) Shows the daemon log messages

2. Which of the following time stamps need not exist for a file on traditional unix file system ?
   (a) Access time
   (b) Modification time
   (c) Creation time
   (d) Change time

3. Which command is used to set terminal IO characteristics ?
   (a) tty   (b) ctty
   (c) ptty   (d) stty

4. How do you rename file "new" to file "old" ?
   (a) mv new old   (b) move new old
   (c) cp new old   (d) rn new old

5. Which command is used to display the operating system name ?
   (a) os   (b) Unix
   (c) kernel   (d) uname

6. The persmission -rwxr-xr-t represented in octal expression will be :

(a)   0777   (b)   1755

(c)   1754   (d)   2754

7. Which command is used to print a file ?

(a)   Print

(b)   ptr

(c)   lpr

(d)   None of the above

8. Using which command will you find resource limits to the session ?

(a)   rlimit   (b)   ulimit

(c)   setrlimit   (d)   getrlimit

9. Which option of ls command used to view file inode number ?

(a) -1 (b) $-o$

(c) $-a$ (d) $-i$

10. What does chmod +t do ?

(a)   Wrong syntax

(b)   Set effective userid for filename

(c)   Set effective groupid for filename

(d)   Set the sticky bit