MCA–20(A)

Linux System Administration (Elective—I)

Master of Computer Application (MCA–11/16/17)

Fifth Semester, Examination, 2017

Time : 3 Hours   **Max. Marks : 80**

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to 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 nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Explain the various inter process communication mechanism in Linux.

2. What are signals ? Explain the working of alarm and abort signals.

3. Explain the directory representation in LINUX.

4. How will you set permissions for Owner, Group and Public ?

Section–B

(Short Answer Type Questions)

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

1. What is GRUB loader ? How does it differ from Linux Loader ?

2. Write a short note on ext3 file system.

3. Explain how you will customize cal command.

4. Write short notes on the following :

   (a) UUCP

   (b) PPP service

5. Why should we upgrade or customize Linux kernel ?

6. Explain any *one* system call related to multitasking.

7. Explain memory mapped I/O in detail.

8. What are sessions ? How the data is shared between parent and child process ?

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. Given the command $ chmod o-w datafile :

   (a) sets write permission to everyone for datafile

   (b) sets write permission to others for datafile

   (c) clears write permission to everyone for datafile

   (d) clears write permission to others for datafile

2. Which command is used to record a user login session in a file ?

    (a) macro

    (b) read

    (c) script

    (d) None of the above

3. Which command is used to print a file ?

    (a) print

    (b) ptr

    (c) lpr

    (d) None of the above

4. Which command is used to assign read-write permission to the owner ?

    (a) chmod a+r file

    (b) chmod o+r file

    (c) chmod u=rw file

    (d) chmod og-r file

5. The soft link will increase the link counter of the file.

    (a) True

    (b) False

6. Which of the following is not a valid file type on Linux ?

    (a) Socket

    (b) Softlink

    (c) Inode

    (d) FIFO

7. Which of the following is not a variant of UNIX ?

(a) Solaris

(b) AIX

(c) IRIX

(d) AS400

8. Which of the following is not a valid run-level ?

(a) S

(b) 0

(c) 8

(d) 1

9. The process of starting up a computer is known as :

(a) Boot Loading

(b) Boot Record

(c) Boot Strapping

(d) Booting

10. Which among the following interacts directly with system hardware ?

(a) Shell

(b) Commands

(c) Kernel

(d) Applications

MCA–20(A)