MCA-20A

Linux System Administration (Elective I)

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

Fifth Semester Examination, 2019 (July)

Time : 3 Hours]   Max. Marks : 80

Note : This paper is of Eighty (80) marks divided into 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 Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

(2×19=38)

1. Explain the file system hierarchy in Linux System. What are the fields in the /etc/passwd file ?

2. What do you understand by message queue semaphore and shared memory?

3. Brifly describe the directory representaion in linux. How does the inode map to data block of a file?

4. Explain the usage of pipes and filter utility in Linux. Explain with help of example.

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 any four (04) questions only.   (4×8=32)

1. How can a parent and child process communicate?

2. How can you get/set an environment variable from a program?

3. Discuss the uses of Meta characters in UNIX.

4. Explain I/O multiplexing.

5. What is memory mapped I/O? Explain.

6. How would you find all the processes running on your computer?

7. Explain the drawbacks of Linux OS.

8. What is Job Control ? Explain.

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.   (10×1=10)

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

    (a)   macro   (b)   read

    (c)   script   (d)   None of the mentioned.

2. Find/-name'*' will

    (a)   List all files and directiories recursively starting from/

    (b)   List a file named *in/

    (c)   List all files in/ directory

    (d)   List all files and directories in / directory.

3. Which shell is the default shell used on Linux systems?

    (a)   csh   (b)   rsh

    (c)   bash   (d)   tcsh.

4. Which of the following cammand output contains userid?

    (a)   1s   (b)   help

    (c)   date   (d)   1s-1.

5. Creation of hardlinks that point across partitions

    (a)   is allowed only to root user

    (b)   can be done by all users

    (c)   the effects are unspecified

    (d)   is not allowed.

6. Effective user id can be set using following permission

    (a) 0777   (b) 2666

    (c) 4744   (d) 1711.

7. When a child process exits before the parent process exits, which of the following is true:

    (a) the child process becomes defunct

    (b) the parent process becomes defunct

    (c) if the parent process does not hanlde SIGCHLD, the child process becomes a zombie

    (d) None of the mentioned.

8. Which is loaded into memory when system is boote?

    (a) kernel   (b) Shell

    (c) Commands   (d) Script.

9. Pick the run level to run Linux in multi user mode with networking.

    (a) 0   (b) 3

    (c) 5   (d) 6.

10. Stream is related with

    (a) Standard I/O

    (b) Interprocess communication

    (c) Semaphore

    (d) None of the above.