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Roll No.

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

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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

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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

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