# BRAINWARE UNIVERSITY

### Course- B.Sc.(HN)

### Linux Server Administration (BHN302)

(Semester – 3)

**Time allotted:  3 Hours**                                                    **Full Marks : 70**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## Group –A

(Multiple Choice Type Questions)                          10 x 1 = 10

1.  *Choose the correct alternative from the following*
(i)   find / -iname * will

  a.  List all files and directories recursively starting from /
  b.  List a file named * in /
  c.  List all files in / directory
  d.  List all files and directories in / directory

(ii)  Which command is used to extract a column from a text file?

  a.  paste
  b.  get
  c.  cut
  d.  tar

(iii) Which command creates an empty file, if file does not exist?

  a.  cat
  b.  touch
  c.  ed
  d.  read

(iv)  How could you install the package ipchains-1.3.9-5.i386.rpm?

  a.  rpm -qip ipchains
  b.  rpm -Uvh ipchains
  c.  rpm -ivh ipchains* .i386.rpm
  d.  rpm -e ipchains-1.3.9-5.i386.rpm

(v)   To create a swap partition by using fdisk, what must be the partition's system ID type?

  a.  83
  b.  82
  c.  5
  d.  4

(vi)  What command is not used to list the files chap01, chap02 and chap04?

  a.  ls chap*
  b.  ls chap[124]
  c.  ls -l chap0[124]
  d.  ls chap0[124]

(vii)   Which represents the user home directory?

      a.  /                             b.  .

      c.  ..                            d.  ~

(viii)  If a file is removed in Unix using 'rm', then

      a.  The file can be recovered by a normal user       b.  The file cannot be recovered by a user

      c.  The file can be fully recovered provided the system is not rebooted       d.  The file will be moved to /lost+found directory and can be recovered only by administrator's intervention

(ix)    What command is used to list contents of directories?

      a.  tar                           b.  dir

      c.  lp                            d.  ls

(x)     Which command changes a file's group owner?

      a.  cgrep                       b.  chgrp

      c.  change                    d.  group

# Group – B

(Short Answer Type Questions)           3 x 5 = 15

Answer any *three* from the following

2.  Differentiate 'erase' and 'remove' command in yum with suitable example.    [5]
3.  Differentiate 'passwd' and 'chage' in password management. Describe each runlevel in detail.    [2 + 3]
4.  Describe booting process in Linux.    [5]
5.  Differentiate program and process with suitable example. What is the utility of *fork* and *wait* system call?    [3 + 2]
6.  Differentiate / and /root. What are the different types of file are supported by Linux?    [2 + 3]

# Group – C

(Long Answer Type Questions)           3 x 15 = 45

Answer any *three* from the following

7.  (a)  Differentiate super block and inode block with suitable diagram (if required).    [5]
    (b)  Describe Linux directory structure with suitable diagram.    [10]
8.  (a)  What is the difference between "gzip" and "zip" utility? Describe with suitable example.    [5]
    (b)  Describe monolithic and micro kernel with suitable diagram.    [10]

9.  (a) Write down the functions of the following with example:
    i.   userdel -r
    ii.  ls –ia
    iii. grep
    iv.  chmod
    v.   chown                                                          [10]
    (b) Differentiate the use of *gpasswd* command for root user and group
        administrator with example.                                      [5]
10. (a) What is zombie and orphan process in Linux?                       [4]
    (b) What is the way to schedule a job? Describe with a suitable
        example.                                                          [4]
    (c) What is the way to provide permission to files and directories in
        both relative and absolute manner? Describe with suitable example. [7]
11.     Write short notes on any *three* from the following:     [3 x 5 =15]
    (a) Linux Shell
    (b) Password management in Linux
    (c) Utility of /etc/fstab
    (d) Hard link vs Symbolic Link