



## BRAINWARE UNIVERSITY

Course – M.Sc.(HN)

Linux System Administration (MHN201)

(Semester – 2)

**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) Which of the following commands changes the group owner of a file?
 

a. chgrp	b. chown
c. chage	d. passwd
  - (ii) Which of the following commands can be used to change the default permissions for files and directories at the time of creation?
 

a. chmod	b. chown
c. umask	d. chgrp
  - (iii) Which of the following represents the user home directory?
 

a. /	b. ~
c. ..	d. \$
  - (iv) How many links are created when we create a directory?
 

a. 1	b. 2
c. 3	d. 4
  - (v) In Linux, initrd is a file that
 

a. Contains root file-system required during boot-up	b. Contains only scripts to be executed during boot-up
c. Contains root-file system and drivers required to be preloaded during boot-up	d. None of the above

- (vi) Which of the following commands is used to count number of characters in a file?
- grep
  - wc
  - count
  - cut
- (vii) Which of the following commands is used to display the file 'sample.txt' one page at a time?
- man sample.txt > more
  - cat sample.txt < more
  - cat sample.txt | more
  - None of these
- (viii) Which of the following commands is used to display all the files including hidden files in your current and its sub directories?
- ls -aR
  - ls -a
  - ls -R
  - ls -l
- (ix) Which of the following commands is used to extract a column from a text file?
- paste
  - get
  - cut
  - tar
- (x) After creating a swap partition by using fdisk, what will be the partition's system ID ?
- 83
  - 82
  - 5
  - 4

### Group – B

(Short Answer Type Questions)

3 x 5 = 15

Answer any *three* from the following

- Describe Linux booting process. [5]
- What is the difference between “orphan” and “zombie” processes? [5]
- Differentiate between erase and remove command in yum with suitable example. [5]
- What is aquota.user and aquota.group? How will they be created? [5]
- Describe the utility of 'gpasswd' command for both root user and group administrator with proper example. [5]

**Group – C**

(Long Answer Type Questions)

3 x 15 = 45

Answer any *three* from the following

7. (a) What is the utility of /home directory? [2]  
 (b) Differentiate between 'gzip' and 'zip' utility. [5]  
 (c) Differentiate between super block and inode block with suitable diagram. [8]
8. (a) Describe monolithic and micro kernel with proper diagram. [8]  
 (b) Describe each and every field in /etc/gshadow file. [7]
9. (a) Write down the functions of the following with example  
 i. usermod -L  
 ii. edquota -g  
 iii. chkconfig  
 iv. grep  
 v. chown [10]  
 (b) How will you mount a file system permanently? Describe with a suitable example. [5]
10. (a) Describe the concept of LVM with suitable diagram. [7]  
 (b) Distinguish read, write and execute permission between file and directory in Linux. [3]  
 (c) How can you change ownership and group-ownership of a file and directory? Explain with a suitable example. [5]
11. Write short notes on any *three* of the following [3 x 5]  
 (a) Linux Shell  
 (b) Hard and soft link in Linux System.  
 (c) Utility of /etc/passwd  
 (d) DORA process  
 (e) Utility of /etc/crontab

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