**Linux Commands Assignment**

**Mandatory Questions**

1. Which command is used to know the current working directory? - **pwd**

2. How would you find out its contents? - **ls**

3. Identify the commands with inputs to do the following

a. create a directory d1 – **mkdir d1**

b. create a subdirectory d2 in d1 – **mkdir -p d1/d2**

c. change to directory d2 – **cd d2**

d. create an empty file “f1.txt” - **touch f1.txt**

e. display the contents of “f1.txt” – **cat f1.txt**

f. view the contents of d1 from current directory d2 – **ls ../d1**

4. Use the ls command with its options. How will you identify directories from the listing?

**(i) ls -l : provides a long listing format that includes permission, owner, group, size and modification data**

**(ii) ls -F : this appends a / to the names of directories, making it easier to identify them at a glance**

**(iii) ls -lF : can make it easier to identify directories by both format and append symbols**

5. Use ls to do the following

a. List files with single character names. – **ls ?**

b. List hidden files also. [ Note : Hidden files are files having name started with a “.” ] –

**ls -a**

c. Suppose there are files tb1.1, tb2.1, tb3.1, ….tb10.1. Write command to list all the files [Hint: use wild card characters] – **ls tb\*.1**

6. Write the command to list all files in descending order of their size. – **ls -lS**

7. Suppose there are files temp1, temp2, temp3. Write command to remove the files without listing them explicitly – **rm temp\***

8. Which command is used to list top few lines in the file? – **head -n<number\_of\_lines>**

**<file\_name>**

9. Create a directory “testdir” – **mkdir testdir**

10. Use cp command to do the following

a. Copy the file tb1.1 (created above) in the same directory. – **cp tb1.1 tb1\_copy.1**

b. Write a command to copy all the files i.e tb1.1,tb2.1,tb3.1,…..tb10.1 in a new directory –“new”

To create new directory – **mkdir new**

To copy all the files to the new directory - **cp tb\*.1 new/**

c. Create a subdirectory in new in named“new1”. – **mkdir new/new1**

d. Write a command to copy selectively only tb2.1, tb6.1, tb7.1 and tb10.1 in the directory new1. – **cp tb2.1 tb6.1 tb7.1 tb10.1 new/new1/**

e. Write a command to copy the entire directory “new” to a directory “newprogs”. [Note : use the –R option of “cp” command ] – **mkdir newprogs**

**cp -r new newprogs/**

11. Find out the difference between

a. ]“mv” & “cp”

**mv:**

**-moves files or directories from one location to another.**

**-can also rename files or directories**

**-the original file is deleted after moving**

**cp:**

**-copies files or directories from one location to another.**

**-options like -r can also be used to copy directories recursively**

**-the original file remains in its location after copying**

b. “rm”, “rmdir”

**rm:**

**-removes files or directories**

**-can delete non-empty directories when used with the -r, rm option**

**rmdir:**

**-removes only empty directories**

**-will fail if the directory contains any files or subdirectories**

c. “mkdir” and “mkdir -p”

**mkdir:**

**-creates a single directory**

**-will fail if the specified directory already exists or if any parent directory does not exist.**

**mkdir -p:**

**- creates the specified directory and any necessary parent directories**

**-does not throw an error if the directory already exists**

12. Use a single command rmdir once to remove “testdir” and all its sub directories and files created above. – **rm -r testdir**

13. Which command is used to get the manual information of a command? – **man <command\_name>**

14. If you are not able to change to a directory what could be the likely cause?

**-directory does not exist**

**-permission denied**

**-not a directory**

**-typological error**

**-path issues**

**-filesystem issues**

15. Explain the differences among the following commands:

a. cd / - **to change the current working directory in the file system**

b. cd .. – **move to parent directory**

c. cd – **move to home directory**

d. cd ../.. – **to go up to the parent of parent directory**