**Learning Objectives:** Students will be able to learn basic UNIX Commands.

When you first log in on a UNIX system, you are always associated with a directory, which is called the home directory or the working directory or the current directory. Your home directory has the same name as your user-name (student) and it is where your personal files and sub-directories are saved.

**Step 1.** Run the command **pwd** on the command prompt. Write down the output appeared on the screen. It’s the absolute path to your working directory, i.e. Pathname starting from /, i.e. root directory.

Absolute path name: ……………………………………………………

**Step 2**. Run **who am i** utility. Write down the output appeared on the screen. …………………………………………………………………………………………………

**Step 3.** Run **who** utility to get the information about logged in users. Take one user-name and run finger user-name to get the information about the user, including full names.

In Unix systems, **ls** utility lists the contents of your current directory. The behavior of a command can be changed by the options.

**Step 4.** Type command **ls –al** at the command prompt. Write down the first two lines of the output. i)……………………………………………………………………………………………… ii) ……………………………………………………………………………………………..

**Step 5.** Type **cd**. at the command prompt. And run the **pwd** utility again. Dose it change your working directory? Yes/No

**Step 6**. Run **cd** .. at the command prompt. And run the **pwd** utility again. Has **cd ..** changed the previous working directory? Yes/No

**Step 7**. According to your observations, what is the function of command **cd, cd**. and **cd..?** …………………………………………………………………………………………………

**Step 8**. Now use **cd** command to change your directory to /. Them Type **ls** and observe the content that can be seen in the output.

Consider the following directories.

/bin, /home, /dev, /etc, /lib

**Step 9**. Type **ls –l** under each directory. Can you interpret the output of **ls –l** command? Check the very first letter of the each line when you type **ls –l** under these directories.

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**Step 10**. Now run **ls** utility and check whether test.txt file exists in the home directory called “student”. If not, create a new file using cat utility, **cat** **> file-name** and add your IT no and name. Use Ctrl+D to save and exit from it.

Then open same file using **vi** **editor** and add some more lines of data.

Practice **mkdir** and **rmdir** commands to create and remove directories from the file hierarchy.

The command syntax **mv source-file destination** is used to move the source-file to the destination called destination. This utility can be used to rename a file without making duplicate copy of it. In that case, command syntax is, **mv existing-filename new-filename**

**Step 11**. Run **mv test.txt ./student** command at the command prompt. Then run **cd ~** command. Run **pwd** command.

i) What is the output for **pwd** utility? …………………………………………………………………………………………………

ii) What is the directory referred by **~** mark? …………………………………………………………………………………………………

**Step 12**. Try **ls ~** and **ls ~/..**

The command syntax **cp source-file destination-file** is used to copy the contents of source file to the destination file called destination-file.

**Step 13**. Run **cp test.txt First.txt** command. Again, run **cp test.txt FiRsT.txt** command. List the files in your home directory. Is UNIX system case sensitive? Yes/No

**Step 14**. The cat (name derived from concatenate) utility displays the contents of a text file.

Run **cat First**. Then, run **rm First**. Again, run **cat First**.

i) Write down the output …………………………………………………………………………………………………

ii) What is the function of **rm** ? …………………………………………………………………………………………………

The head utility displays the first ten lines of a file. It is useful for reminding yourself what a particular file contains. The tail utility is similar to head, except it displays the last ten lines of a file.

**Step 15**. Write down the output

i) **head -3 test.txt** ………………………………………………………………………………………………… ………………………………………………………………………………………………… ………………………………………………………………………………………………… …………………………………………………………………………………………………

ii) **tail -2 test.txt** ………………………………………………………………………………………………… ………………………………………………………………………………………………… ………………………………………………………………………………………………… …………………………………………………………………………………………………

**Step 20**. Write a C program which prints the current local time in the format: hh:mm:ss to standard output. (Hint: look at the manual page for time (2) and localtime (3c).