**Assignment 1**

**Related Lab Outcomes:**

**ITL402.1: Identify the basic Unix general purpose commands.**

**ITL402.2: Apply and change the ownership and file permissions using advance Unix commands.**

Note: All answers related to commands should be executed on terminal and screenshot is to be attached as output with description.

1. What are the different blocks that constitute Unix file system
2. Explain the procedure of mounting and unmounting a file system in Unix
3. Explain the role of default files and directories in Unix os.
4. Explain the difference between

* Hard and symbolic links
* Who and finger commands

1. What is the use of bc command? Explain a few functions that are associated with it.
2. Explain the term globbing with examples
3. Command to find square root of number 17 (result should be displayed up to 5 places of decimals)
4. In the long listing command ls – li , if you find two or more files with same inode number, what does that mean?
5. Command to display the node name, ie the name of your machine.
6. Is there a way to copy contents of the files a.txt and b.txt to file c.xt without deleting the earlier contents of file c.txt? if yes, mention the command
7. What is the command to display the hardware platform and name of OS on the machine.
8. Explain the following commands

* Sort
* Wc
* Head
* Tail
* Diff
* Uniq
* Split
* Cmp
* Comm

1. Find the command, to assign read, write and execute permission to the owner; read and write to group and read only for others.
2. Find the command, to set permissions for directories to be created in future as read , write and execute for owner, read and write for group and read only for other
3. Find the command, to change the ownership of the file file1.txt to Charles.
4. Find the command, to sort file a.txt in reverse order and store it in b.txt
5. Find the command, to create a group by name seit
6. Find the command, to display all duplicate lines in file abc.txt
7. Can you sort the file a.txt on the second and third field skipping the first field, if yes, give an example.
8. Is there a way to split a file a.txt into pieces that are 10 KB each, if yes, give example
9. Explain the commands

* Zip
* Unzip
* Compress
* Uncompress
* Pack
* Pcat
* Unpack
* Set

1. What is the difference between file /etc/hosts.allow and /etc/host.deny
2. How is the shell variable created and how can a local shell variable be made a global variable
3. In long listing ls – l , if you find a file with mode field set to 1, what does that mean?
4. How will you know whether a particular file in / dev directory represents a character device or block device
5. Find the output,

* $ export project\_name
* $ PS1=”UnixPrompt”
* $ which cat
* $ echo $HOME