**Questions**

1. **Give the output for the following commands:**

**a. echo “hello world”**

echo “hello world”

**b. List all the files (hidden included) present in the current directory in long format displaying files in reverse order, sorted based on the modification time.**

ls –alrt

**c. Change your current password.**

Passwd

**d. How to get the current date**

date

**e.How to get the current logged in user**

whoami

**f. How to get the current working directory.**

Pwd

**g.How to get the list of all commands that you have typed so far**

history

**h.To get the information on the TCP ports**

netstat

**i.To get the information about the running processes.**

ps –e

**j.Search for a word in a file. (Hint – grep)**

grep “file11” file11

**k. Search for a specific process. (Hint - use | with ps )**

ps | grep bash

1. **Create a directory “exercises” inside your home directory. cd to this new directory.**

mkdir exercise

cd exercise

1. **Create 3 empty files , file1.txt,file2.txt,file3.txt in current directory (exercises).**

touch file1.txt file2.txt file3.txt

1. **Add some text to file1.txt and copy this to ~/exercises/files.**

cp –r “file1.txt” ~/exercises/files

1. **Copy the entire exercise directory to this files directory.**

Cp ~/exercises/\*.\* ~/exercises/files

1. **Create a symlink “testlink” in your home directory that points to this file1.txt i.e. ~/exercises/files/file1.txt.**

Ln –s ~/exercises/files/file1.txt test.link

**7. creating a hard link in your home directory that points to “files” directory .**

ln –s ~/exercises/files dox

**8. Difference between soft and hard link.**

A symlink is actually pointing to another path (a file name) and it resolves the name of the file each time you access it through the symlink. If you move the file, the symlink will not follow. If you replace the file with another one, keeping the name, the symlink will point to the new file. Symlinks can span filesystems.

On the other hand, a hardlink isn't a pointer to a file, it's a directory entry (a file) pointing to the same inode. Even if you change the name of the other file, a hardlink still points to the file. If you replace the other file with a new version (by copying it), a hardlink will not point to the new file. You can only have hardlinks within the same filesystem.

**9. Change permissions for files directory such that nobody other than the user who created the directory, can write/update anything in that directory.**

Ls –l files

Chmod 600 files

**10. Create a new user “test”.**

sudo adduser test

**11. Change the owner of file1.txt to test**

Su

ls

cd exercises

chown test file1.txt

12. **Create following directory structure with single command -**

**home**

**|-john**

**|-work**

**|-scripts**

**|-bash**

**Assume that you are currently in ‘home’ directory.**

mkdir –p john/work/scripts/bash

**13.Try deleting the ~/exercises/files/exercises directory. See what happens.**

rmdir ~/exercises/files/exercises

**error message:** rmdir:failed to remove : permission denied

**14. A file named employees.odt has a mode of rw-r- -r- -. If John is not the file's owner but is a member of the group that owns this file, what can he do with it?**

only read

**15. Create an alias for clearing the screen.**

alias cls=”clear”

**16. Create a tar archive of all the files in the current directory.**

tar cvf archive.tar \*

**17. How to find if a jar file contains a particular class file?**

jar cvf new.jar A.class A2.class

**18. How to find all jars with given class name.**

jar cvf new2.jar A.class

**19. How to find files greater than a certain size**

Find . –size 50k

**20. How do you add and remove a variable in the shell environment?**

Adding\_test=’Adding a global variable’

Export adding\_test

echo $adding\_test

unset adding\_test

echo $adding\_test

**21. Install openssh-server on your system**

Sudo apt-get install openssh-server

**22. Try remote login to your friend’s machine using ssh.**

ssh aroop@10.226.46.219

**23. Copy some files from your machine to your friend’s machine. (Hint – scp)**

vikas.txt aroop@10.0.10.35:~/