Q1. Explore the following commands with various options, refer man pages for

further help a) date b) cal c) bc d) echo e) who f) whoami g) logname g) uname h)

seq i) clear

%a : locale's abbreviated weekday name (e.g., Mon)

%A :locale's full weekday name (e.g., Monday)\

%b :locale's abbreviated month name (e.g., Apr)

%B :locale's full month name (e.g., April)

%c :locale's date and time (e.g., Thu Mar 3 23:05:25 2005)

%C :century; like %Y, except omit last two digits (e.g., 20)

%d :day of month (e.g., 01)

%D :date; same as %m/%d/%y

%e :day of month, space padded; same as %\_d

%F :full date; same as %Y\-%m\-%d

%g :last two digits of year of ISO week number (see %G)

%G :year of ISO week number (see %V); normally useful only with %V

%h :same as %b

%H :hour (00..23)

%I :hour (01..12)

%j :day of year (001..366)

%k :hour, space padded ( 0..23); same as %\_H

%l :hour, space padded ( 1..12); same as %\_I

%m :month (01..12)

%M :minute (00..59)

%n :a newline

%N :nanoseconds (000000000..999999999)

%p :locale's equivalent of either AM or PM; blank if not known

%P :like %p, but lower case

%r :locale's 12\-hour clock time (e.g., 11:11:04 PM)

%R :24\-hour hour and minute; same as %H:%M

%s :seconds since 1970\-01\-01 00:00:00 UTC

%S :second (00..60)

%t :a tab

%T :time; same as %H:%M:%S

%u :day of week (1..7); 1 is Monday

%U :week number of year, with Sunday as first day of week (00..53)

%V :ISO week number, with Monday as first day of week (01..53)

%w :day of week (0..6); 0 is Sunday

%W :week number of year, with Monday as first day of week (00..53)

%x :locale's date representation (e.g., 12/31/99)

%X :locale's time representation (e.g., 23:13:48)

%y :last two digits of year (00..99)

%Y :year

%z :+hhmm numeric time zone (e.g., \fB\-0400\fR)

%:z+hh:mm numeric time zone (e.g., \fB\-04\fR:00)

%::z+hh:mm:ss numeric time zone (e.g., \fB\-04\fR:00:00)

%:::z numeric time zone with : to necessary precision (e.g., \fB\-04\fR, +05:30)

%Z :alphabetic time zone abbreviation (e.g., EDT)

Q2. A) Create three directory a b and c and create a.txt,b.txt and c.txt

in each directory respectively and then copy c directory into the a.

B)Move Directory b to c.

C)Create alias of ls -lh command to your name. **alias shru="ls -lh"**

D)Change Directory name a to cdac.ls

**mkdir cdac**

**mv c cdac**

Q3. A) Create five files file1.txt , file2.txt ,file3.txt file4.txt and

file5.txt with some text inside it. Search for 's' character

inside all the files using grep command.

**shruti@DESKTOP-74GRHEA:~/d$ grep 'f' file\*.txt**

**file1.txt:In file 1**

**file2.txt:In file2**

**file4.txt:In file 4**

**file5.txt:In file 5**

Also Use cat to view all file content together.

**shruti@DESKTOP-74GRHEA:~/d$ cat file\*.txt**

**In file 1In file2In File 3In file 4**

**In file 5**

B)Create file.txt using cat and edit that using nano editor.

**cat > file.txt**

**vi file.txt**

**cat >> file.txt**

c)Create 5 empty files using touch command

**touch touch1.txt touch2.txt touch3.txt touch4.txt touch5.txt**

D)Remove previously created directory a , b and c

**rm -R a**

**rm -R c**

Q4. Create a file with some content using vi editor

**vi vifile1.txt**

1. Display the file using cat command

**cat vifile1.txt**

1. Display line numbers along with content

**cat -n vifile1.txt**

1. Display the file in reverse order using tac

**tac vifile1.txt**

d) Combine multiple files using cat command

**cat file1.txt file2.txt > file3.txt**

Q5. Create Random some files and sub directories.

1. display files row wise, column wise, 1 per row

**column f1.txt**

1. sort the files in ascending, descending order
2. **sort shubh1.txt**

**sort -r shubh1.txt**

1. Create some hidden files and sub directories and display them using “ls -a”

cat > .hidden.txt

ls -a

1. Change time stamp of some files and directories using touch command and display the files using ls -t ls -rt

**stat d1.txt**

1. Recursive display contents of your home directory.

**ls -R**

f) display all attributes of files and directories using ls -l

**ls -l**

1. display attributes of a directory using ls -ld
2. ls -ld

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Q1. Create directory of your name and then create 4 files inside it named

a.txt, b.txt, c.txt and d.sh. And change the directory permission to

only user and also files permission to only user such that

**mkdir Shruti**

**touch a.txt b.txt c.txt d.sh**

a)user can read and write the file a.txt and b.txt

**chmod 060 a.txt b.txt**

b)user can write the file c.txt

**chmod 020 c.txt**

c)user can exectuable the file d.sh. Make

Contents of file d.sh:

#/bin/sh

ls -lh

**chmod 070 d.sh**

**cat >> d.sh**

Q2. Change the permission of the previous directory to executable only.

**chmod 010 shruti**

**shruti@DESKTOP-74GRHEA:~/Assign1$ cd shruti**

**-bash: cd: shruti: Permission denied**

Analyze the output.

Q3. Change the permission of the previous directory to read only.

**chmod 040 shruti**

**shruti@DESKTOP-74GRHEA:~/Assign1$ cd shruti**

**-bash: cd: shruti: Permission denied**

Analyze the output.

Q4. Use echo to list the all files of your home directory.

**echo s\***

Q5. Use echo to list the all files of /etc/ directory

Q6. Use echo to list the all files of /etc/ directory with extension name .conf

**echo \*.conf**

Q7. Use echo to append your name to a.txt

**echo 'shruti' > file.txt**

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Note: Many operation might not work. Analyze them

1. Create Three level nested directory a,b and c

a)Create at least one hidden file in each directory

mkdir -p a/b/c

b)Create at least one normal text file in each directory

touch filea.txt ./b/fileb.txt ./b/c/filec.txt

c)Copy c into a

cp -r b/c ./

d)Copy file inside a into b

cp filea.txt b/

2.Change the third level directory c permission to read only

chmod a+r b/c

3.Try copying third level c directory to outside of a

cp b/c ../

4.Create the directory “data“ inside b

mkdir b/data

5.Change the permission of b to read and write only

chmod u+rw b

6.Create directory “data2” inside b

mkdir b/data2

7.Create data.txt file inside b

touch b/data.txt

8.Rename the second level directory c to copied\_dir

mv b/c a

9.Change permission of copied\_dir to only executable

chmod u+x b/c

10.Try ls on copied\_dir

ls cannot run because of executable only cannot read

11.Try moving copied\_dir to outside of a

cannot move dir to outside because of restriced permissions

12.Try moving data directory outside of a

cannot move, permission access denied

13.Now change the owner of the directory a to root

groups username

chgrp webdev file.txt

ls -l file.txt

14.Change permission of a to read write and executable to only user

chmod u+rwx a

15.Try creating directory sample inside a

mkdir a/d

16.Create directory x outside a

mkdir ../x

17.Try moving x inside a

mv x ./a

18.Create directory movies

mkdir movies

19.Change group of movies to sudo

sudo usermod -aG sudo newuser

20.Change group of movies to avahi

chgrp scifi myfile

ls -l myfile

21.Try changing permission after changing ownership to root

sudo chmod --recursive a+rwx /tmp

22.Try Changing permission after changing group to sudo without sudo

pkexec chmod go-w /usr/lib/sudo/sudoers.so

23.Try Changing owner and group both to root

sudo chown -R username:group directory

24.Try changinging permission

sudo usermod -aG sudo newuser

25.Try deleting the file

rm -rf a.txt