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

Ans:-

a)date

1. date +%a ---> Mon

2.date +%A ----->Monday

3. date +%b-->Sep

4.date +%B-->September

5.date +%d-->07

6.date +%D -->09/07/20

7.date +%F-->2020-09-07

8.date +%y-->20

9.date +%Y-->2020

10.date +%T-->22:07:56

11.date +%d/%B/%Y-->07/September/2020

12.date +%d-%B-%Y-->07-September-2020

13.date +%B%d%Y-->September072020

14.date +%d%B%Y-->07September2020

15.date +%B%d%Y-->September072020

b)cal --calander

1.cal

September 2020

Su Mo Tu We Th Fr Sa

1 2 3 4 5

6 7 8 9 10 11 12

13 14 15 16 17 18 19

20 21 22 23 24 25 26

27 28 29 30

2.cal -m jan

January 2020

Su Mo Tu We Th Fr Sa

1 2 3 4

5 6 7 8 9 10 11

12 13 14 15 16 17 18

19 20 21 22 23 24 25

26 27 28 29 30 31

3.cal 2022 -->whole year calender

1.cal --> Shows current month calendar on the terminal

2.cal -m jan --> current month given in command

3.cal 2022 -->whole year calender

4.cal -3 --> Shows calendar of previous, current and next month

5.cal 08 2020 --> Shows calendar of selected month and year

C).bc

The bc command supports the following features:

1.Arithmetic operators echo "12+5" | bc

2.Increment or Decrement operators

echo "var=10;++var" | bc

3.Assignment operators

echo "var=10;var" | bc

4.Comparison or Relational operators

echo "10>5" |bc -->true returns 1

echo "1==2" | bc -->false return 0

5.Logical or Boolean operators

Logical operators are mostly used in conditional statements.

The result of the logical operators is either 1(TRUE) or 0(FALSE).

expr1 && expr2 : Result is 1 if both expressions are non-zero.

echo "10 && 5 " | bc

expr1 || expr2 : Result is 1 if either expression is non-zero.

echo "0||0" | bc

!expr : Result is 1 if expr is 0.

echo "! 0" | bc

6.Conditional statements

echo 'n=8 ; m=10; if(n>m) print "n is greater" else print "m is greater" ' | bc

7.Iterative statements

echo "for(i=1; i<=10; i++) {i;}" | bc

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.

D)Change Directory name a to cdac.

Ans:-

A)

mkdir a b c

cd a

touch a.txt

cd ..

cd b

touch b.txt

cd ..

cd c

touch c.txt

cd ..

cp -r c a ----copy C dir into a dir

cd a

ls

a.txt c

B)

cd ..

mv b c

cd c

ls

b c.txt

c)

rw-r--r-- 1 traiblazer traiblazer 71K Jul 24 20:12 520077.pdf

-rw-r--r-- 1 traiblazer traiblazer 3.3K Sep 7 23:10 'Assignment 1'

drwxr-xr-x 3 traiblazer traiblazer 4.0K Sep 8 01:30 B

drwxrwxrwx 4 traiblazer traiblazer 4.0K Sep 7 20:25 OS

D) mv a 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.

Also Use cat to view all file content together.

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

c)Create 5 empty files using touch command

D)Remove previously created directory a , b and c.

Ans: touch file1.txt file2.txt file3.txt file4.txt file5.txt

Q4. Create a file with some content using vi editor

a) Display the file using cat command

b) Display line numbers along with content

c) Display the file in reverse order using tac

d) Combine multiple files using cat command

Q5. Create Random some files and sub directories.

a) display files row wise, column wise, 1 per row

b) sort the files in ascending, descending order

c) Create some hidden files and sub directories and display them using “ls -a”

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

e) Recursive display contents of your home directory.

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

g) display attributes of a directory using 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

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

b)user can write the file c.txt

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

Contents of file d.sh:

#/bin/sh

ls -lh

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

Analyze the output.

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

Analyze the output.

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

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

Q7. Use echo to append your name to a.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

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

c)Copy c into a

d)Copy file inside a into b

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

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

4. Create the directory “data“ inside b

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

6. Create directory “data2” inside b

7. Create data.txt file inside b

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

9. Change permission of copied\_dir to only executable

10. Try ls on copied\_dir

11. Try moving copied\_dir to outside of a

12. Try moving data directory outside of a

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

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

15. Try creating directory sample inside a

16. Create directory x outside a

17. Try moving x inside a

18. Create directory movies

19. Change group of movies to sudo

20. Change group of movies to avahi

21. Try changing permission after changing ownership to root

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

23. Try Changing owner and group both to root

24. Try changinging permission

25. Try deleting the file