What will following comments do

1. Echo “ hello , world !”

Answer - prints the “ hello , world !” as it is

1. name= “Productive”

Answer - create shell variable named productive

1. touch file.txt

Answer - create new file

1. ls -a

Lists hidden files also

1. rm file.txt

Deletes file.txt named file

1. cp file1.txt file2.txt

Coppys file1.txt content to file2.txt

1. mv file.txt /path/to/directory/

Moves file.txt to given path to directory

1. chmod 755 script.sh

Changes permissions for [script.sh](http://script.sh) for owner its rwx and for group its r-x and for others users r-x

1. grep "pattern" file.txt

Searches pattern word in file.txt

1. kill PID

It terminates the process

1. mkdir mydir && cd mydir && touch file.txt && echo "Hello, World!" > file.txt && cat file.txt

Creates file named mydir then enters into it creates file.txt into this file.txt writes echo hellow world then shows content of file.txt

1. ls -l | grep ".txt"

Lists the long files and then search into for txt files

1. cat file1.txt file2.txt | sort | uniq

Shows content of file1.txt and file2.txt and shows doubled content into it

1. ls -l | grep "^d"

Shows long files and then shows directories

1. grep -r "pattern" /path/to/directory/

Recursively searches for pattern in given path

1. cat file1.txt file2.txt | sort | uniq –d

Shows content of file1.txt and file2.txt and then shows the duplicate contetnnts

1. chmod 644 file.txt

Owner rw- group r– user r–

1. cp -r source\_directory destination\_directory

Copies one directory content to another

1. find /path/to/search -name "\*.txt"

Finds .txt files in given path

1. chmod u+x file.txt

Gives execution permission to user

1. echo $PATH

Prints the path

Part 2

. ls is used to list files and directories in a directory.

True

2. mv is used to move files and directories.

True

3. cd is used to copy files and directories.

False

4. pwd stands for "print working directory" and displays the current directory.

True

5. grep is used to search for patterns in files.

True

6. chmod 755 file.txt gives read, write, and execute permissions to the owner, and read and execute permissions to group and others.

True

7. mkdir -p directory1/directory2 creates nested directories, creating directory2 inside directory1 if directory1 does not exist.

True

8. rm -rf file.txt deletes a file forcefully without confirmation.

True

1. chmodx is used to change file permissions. – incorrect

cpy is used to copy files and directories. — incorrect

. mkfile is used to create a new file. — incorrect

4. catx is used to concatenate files. —- incorrect

. rn is used to rename files. —- incorreect

Part c

Question 1: Write a shell script that prints "Hello, World!" to the terminal.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./ prasad.sh

-bash: ./: Is a directory

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

-bash: ./prasad.sh: Permission denied

cdac@Prasad:~/LinuxAssignment$ chmod o+x prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

-bash: ./prasad.sh: Permission denied

cdac@Prasad:~/LinuxAssignment$ chmod +x prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

hello , world

cdac@Prasad:~/LinuxAssignment$

Question 2: Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

hello , world

The value of variable name is : CDAC Mumbai

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

echo "hello , world"

name="CDAC Mumbai"

echo "The value of variable name is : $name"

cdac@Prasad:~/LinuxAssignment$

Question 3: Write a shell script that takes a number as input from the user and prints it.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

Enter a number:5

your number : 5

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

echo -n "Enter a number:"

read num

echo "your number : $num"

cdac@Prasad:~/LinuxAssignment$

Question 4: Write a shell script that performs addition of two numbers (e.g., 5 and 3) and prints the result.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

the sum of 5 and 3 = 8

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

a=5

b=3

sum=$((a+b))

echo "the sum of $a and $b = $sum"

cdac@Prasad:~/LinuxAssignment$

Question 5: Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./ prasad.sh

-bash: ./: Is a directory

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter number:5

./prasad.sh: line 7: eecho: command not found

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter number:5

odd

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter number:4

even

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

echo -n "enter number:"

read num

if (( num % 2 == 0 )); then

echo "even"

else

echo "odd"

fi

cdac@Prasad:~/LinuxAssignment$

Question 6: Write a shell script that uses a for loop to print numbers from 1 to 5.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

1

2

3

4

5

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

for i in {1..5}

do

echo $i

done

cdac@Prasad:~/LinuxAssignment$

Question 7: Write a shell script that uses a while loop to print numbers from 1 to 5.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

1

2

3

4

5

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

i=1

while [ $i -le 5 ]

do

echo $i

((i++))

done

cdac@Prasad:~/LinuxAssignment$

Question 8: Write a shell script that checks if a file named "file.txt" exists in the current directory. If it does, print "File exists", otherwise, print "File does not exist".

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

./prasad.sh: line 2: [: missing `]'

./prasad.sh: line 5: echofile not exist: command not found

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

file not exist

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

if [ -f "file.txt" ]; then

echo "file exist"

else

echo "file not exist"

fi

cdac@Prasad:~/LinuxAssignment$

Question 9: Write a shell script that uses the if statement to check if a number is greater than 10 and prints a message accordingly.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter number :5

./prasad.sh: line 4: 10: No such file or directory

number is smaller than 10

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter number :5

number is smaller than 10

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

echo -n "enter number :"

read num

if [ $num -gt 10 ]; then

echo " the num is greater than 10 "

else

echo " number is smaller than 10 "

fi

cdac@Prasad:~/LinuxAssignment$

Question 10: Write a shell script that uses nested for loops to print a multiplication table for numbers from 1 to 5. The output should be formatted nicely, with each row representing a number and each column representing the multiplication result for that number.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

1 2 3 4 5

2 4 6 8 10

3 6 9 12 15

4 8 12 16 20

5 10 15 20 25

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

for i in {1..5}

do

for j in {1..5}

do

printf "%4d" $((i \* j))

done

echo

done

cdac@Prasad:~/LinuxAssignment$

Question 11: Write a shell script that uses a while loop to read numbers from the user until the user enters a negative number. For each positive number entered, print its square. Use the break statement to exit the loop when a negative number is entered.

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter a number :5

./prasad.sh: line 10: num: command not found

square of 5 is :

enter a number :5

./prasad.sh: line 10: num: command not found

square of 5 is :

enter a number :^[^C

cdac@Prasad:~/LinuxAssignment$ vi prasad.sh

cdac@Prasad:~/LinuxAssignment$ ./prasad.sh

enter a number :5

square of 5 is : 25

enter a number :9

square of 9 is : 81

enter a number :10

square of 10 is : 100

enter a number :11

square of 11 is : 121

enter a number :^C

cdac@Prasad:~/LinuxAssignment$ cat prasad.sh

#!/bin/bash

while true

do

echo -n " enter a number :"

read num

if [ $num -lt 0 ]; then

echo " exiting "

break

fi

echo " square of $num is : $((num \* num ))"

done

cdac@Prasad:~/LinuxAssignment$