1. Write a shell script that adds an extension ".new" to all the files in the directory.

Ans.)

```
#! /bin/bash
   #First loop remove all the current extension of files

        for i in * ; do
            if [ -f $i ]; then
                mv $i ${i%.*}
                    fi
                      done
  #Second loop Add '.new' to all files

          for i in * ; do
              if [ -f $i ]; then
                 mv $i $i.new
                    fi
                        done
```

2. Delete file which has special character "-", "--", "*", "$"

Ans.)

```
#!/bin/bash
     for i in find . -name '*[-*$_]*' ; do
           rm -f $i
              done
```

3.) write a shell script that take two input numbers from user at runtime and display arithematic operation on that number, find out max & min number from them find weather that numbers negative or positive?

Ans.)

```
#!/bin/bash

    echo "First Number :"
           read a
   echo "Second Number :"
         read b
    MinMax() {
 echo "-----------------------------------------------------------------
-----------"
 if [ $a -gt $b ] ; then
 echo "$a is Maximum"
 echo "$b is Minimum"
      else
echo "$b is Maximum"
echo "$a is Minimum"
    fi
echo "-----------------------------------------------------------------
----------"
}

NegativePositive(){
      if [ $a -gt 0 ] ; then
            echo "$a is Positive"
      else
            echo "$a is Negative"
      fi
      if [ $b -gt 0 ] ; then
            echo "$b is Positive"
      else
            echo "$b is Negative"
```

```
      fi

      echo "------------------------------------------------------------
----------"
}

MinMax
NegativePositive

echo "[Choose Operation to perform]"
echo "1) Addition"
echo "2) Substraction"
echo "3) Division"
echo "4) Multiplication"
echo "[  CTR+C to Stop ]"
echo "------------------------------------------------------------------
----"
while : ; do
read ops
case $ops in
      1) echo "Addition" :  $((a+b)) ;;
      2) echo "Substraction" : $((a-b)) ;;
      3) echo "Division" : $((a/b)) ;;
      4) echo "Multiplication" : $((a*b)) ;;
      *) echo "This is not a choise" ;;
esac
done
```

4.) . Write a shell script that take one input number from user and print 1 to n number using three loops (For, while, until). (N = entered number)

Ans.)

```
#!/bin/bash
echo "Enter Number :"
read a

While(){
      echo "------------------------------------------------------------
----------"
      i=1 ;
      while [ $i -lt $1 ] ; do
            echo "$i"
            i=$(($i + 1 ))
      done
      echo "------------------------------------------------------------
----------"
}

Until(){
      i=1 ;
      until [ $i -gt $1 ] ; do
            echo "$i"
            i=$(($i + 1 ))
      done

      echo "------------------------------------------------------------
----------"
}
For(){
```

```
      for i in ` seq 1 $1 ` ; do
            echo "$i"
      done

      echo "-----------------------------------------------------------------
----------"
}

echo "[Choose Operation to perform]"
echo "1) While "
echo "2) Until "
echo "3) For "
echo "[  CTR+C to Stop ]"
echo "-----------------------------------------------------------------------
----"
while : ; do
read ops
case $ops in
      1) echo "Using While Loop:" ; While $a ;;
      2) echo "Using Until:" ; Until $a ;;
      3) echo "Using For Loop:" ; For $a  ;;
      *) echo "This is not a choise" ;;
esac
done
```

5.) Write a shell script to display the last updated file of the newest file in a directory?

Ans.)

```
               #!/bin/bash

              for i in $(ls -t) ; do
      if [ -f $i ] ; then
                echo "Last updated file : In [ $(pwd) ]"
                      echo $i
                         break
                                  fi
                                           done
```

6.) Write a shell script to get the total count of the word “Linux” in all the “.txt” files and also across files present in subdirectories?

Ans.)

```
                    #!/bin/bash

                    echo "Total \"Linux\" Words in current directory and
Its subdirectories"
                           find . -name "*.txt" | xargs grep -o -i
"Linux" | wc -l
```

7.) Write a shell script that copy all the directories, subdirectories and files from one location to another specific location?

Ans.)

```
              #!/bin/bash
                k=$1
                read -p “enter destination path” des
           echo “$des”
           for file in `ls $1/*`
```

```
do
      echo "$file"
      cp -r $file $des
      done
```

8. Display specific number of lines as follow:

1. Display first and last 10 lines of file contains

Ans.)

```
#!/bin/bash

  k=$1
  echo "$k"
  out="$(cat $k | head )"
  echo "$out"
```

2. Display line no. 3 to 8 from file contains.

```
#!/bin/bash

  k=$1
  echo "$k"
  out="$(head -8 $k | tail -5)"
  echo "$out"
```

3. Display 7 lines and start from second last line in reverse manner.

```
#!/bin/bash

  k=$1
  echo "$k"
  out="$(tac $k | head -8 | tail -7)"
  echo "$out"
```

9. Perform following task:

1. Add two new users and two groups
   sudo groupadd groupname (to add new group)
   useradd -G jsmith (to add new user)
   sudo usermod -a -G group1,group2,group3 exampleusername (adding existing user to multiple groups)

2. Login as one user and then create new file

```
      su username
      touch filename
```

3. Send created file from one user to another user

```
      sudo cp /home/USER1/FNAME /home/USER2/FNAME && sudo chown
USER2:USER2 /home/USER2/FNAME
```

      (Will copy the file from USER1 to USER2, and then change the owner of the copy in /home/USER2 to USER2

)

4. Login as second user and copy that file from user2 to user1(in same system)

```
      sudo cp /home/USER2/FNAME /home/USER2/FNAME && sudo chown
USER1:USER1 /home/USER1/FNAME
```

      (Will copy the file from USER2 to USER1, and then change the owner of the copy in /home/USER1 to USER2

10. Ex. 10 Task to find all files from folder where file contains string 'abc'

```
      #!/bin/bash



      k=$1
      for file in `ls $k/*`
      do
      sea="$(grep -c "abc" $file)"
      echo "$sea"
      if [ "$sea" -ne "0" ]
          then
            echo "$file"
      fi

      done
```

```
var="sdgs sgdshjdg gfdfj"

select choice in $var ; do
echo "$choice"
done
```