Ques1 :

```
echo "Enter no."
read num
for((i=1 ;i<=num; i++))
do
      mkdir a$i
done
```

Ques2 :

```
echo "Please enter your choice"
read ch
echo ""
case $ch in
    1)
          echo "Enter String : "
          read str
          length=${#str}
          echo "Length of $str is $length";;
    2)
          echo "Enter String : "
          read str
          cpystr=$str
          echo "copied string is $cpystr ";;
    3)
```

```
echo "Enter first string :"

read str1

echo "Enter second string :"

read str2

resultstr="$str1$str2"

echo "$resultstr";;
```

4)

```
echo "Enter first string :"

read str1

echo "Enter second string :"

read str2

if [ $str1 != $str2 ];then

    echo "$str1 is not equal to  $str2"

else

    echo "$str1 is same as $str2"

fi;;
```

5)

```
echo "Enter a String :"

read str

len=${#str}

for ((i=$len-1;i>=0;i--))

do

    reverse=$str | rev

done

    echo "$reverse"


;;
```

```
        *)
            echo "Invalid Option"
esac
```

Ques3

```
ls -v | cat -n | while read n shantanu; do mv -n "$shantanu" "$n shantanu.ext"; done
```

Ques4

```
echo $HOME

echo $PATH

echo $SHELL

echo $HISTORY

echo $LOGNAME

echo $TERM
```

Ques5

```
> ls -la | cut -b 1-10

> ls -la | cut -c 1-10
```

Ques6

```
ls -l | cut -d ' ' -f 1
```

Ques7

```
ls -l | awk '{ print $1 }'
```

==
=====================

Ques1

```
echo "enter Year :"

read yr

if [ $((yr%400)) -eq 0 ];then

    echo "leap year"

elif [ $((yr%100)) -ne 0 ];then

    echo "Not a leap year"

elif [ $((yr%4)) -eq 0 ];then

    echo "Leap Year"

else

    echo "not a leap year"

fi
```

Ques2

a)

```
    echo 'Enter the no of Day : '

    read day


    if [ $day == 1 ]
```

```
                then
                        echo 'Sunday'
        elif [ $day == 2 ]
        then
                        echo 'Monday'
        elif [ $day == 3 ]
        then
                        echo 'Tuesday'
        elif [ $day == 4 ]
        then
                        echo 'Wednesday'
        elif [ $day == 5 ]
        then
                        echo 'Thrusday'
        elif [ $day == 6 ]
        then
                        echo 'Friday'
        elif [ $day == 7 ]
        then
                        echo 'Saturday'
        else
                        echo 'Invalid Entry'
        fi


b)
echo "Enter the number of day"
read daynum
```

```
case $daynum in

    1) echo "Monday";;

    2) echo "Tuesday";;

    3) echo "Wednessday";;

    4) echo "Thursday";;

    5) echo "Friday";;

    6) echo "Saturday";;

    7) echo "Sunday";;

    *) echo "Invalid Input";;

esac
```

Ques3

a)

```
echo "Enter first number "

read n1

echo "Enter Second number"

read n2

echo "Enter third number"

read n3

if [ $n1 -gt $n2 ] && [ $n1 -gt $n3 ];then

    echo "$n1 is the gratest number"

elif [ $n2 -gt $n1 ] && [ $n2 -gt $n3 ];then

    echo "$n2 is the greatest number"

else

    echo "$n3 is the greatest"
```

```
    fi


b)

echo "Enter first number"

read n1

echo "Enter second number"

read n2

echo "Enter third number"

read n3

find_avg()

{

    sum=`expr $n1 + $n2 + $n3`

    avg=`expr $sum / 3`

    echo "Average is $avg"

}


find_avg


Ques4


echo "Enter number "

read n1

rem=$(( $n1 % 2))

if [ $rem -eq 0 ];then

    echo "$n1 is even"

else
```

```
        echo "$n1 is odd"

fi


Ques5


mon=$(date | awk '{print $3}')

        year=$(date | awk '{print $4}')


        let "prev=year-1" "next=year+1"


        cal $mon $prev

        cal $mon $year

        cal $mon $next



Ques6


echo "Enter two numbers"

read num1 num2

sum =`expr $num1 + $num2`

echo "The sum is = $sum"

pro =`expr $num1 * $num2`

echo "The product is = $pro"



echo $(( $num1 + $num2 ))

echo $(( $num1 * $num2 ))
```

```bash
#!/bin/bash

        echo 'Enter num1 : '

        read num1

        echo 'Enter num2 : '

        read num2

        echo 'Enter num3 : '

        read num3


        (( avg = (( $num1+$num2+$num3 ))/3 ))

        echo 'Average : '$avg
```

Ques7

```bash
N=6
a=0
b=1

echo "The Fibonacci series is : "

for (( i=0; i<N; i++ ))
do
   echo -n "$a "
   fn=$((a + b))
   a=$b
   b=$fn
```

```
        done
```

Ques8

```
echo "Enter a String :"

read str

reverse=$str | rev

echo "$reverse"
```

Ques9

```
        echo 'Enter array of Strings : '

        read -a arr


        min=0

        max=`expr ${#arr[@]} - 1`

        x=$max

        while (( $min <= $max ))

        do

                newArr[$min]=${arr[$max]}

                newArr[$max]=${arr[$min]}

                (( min++ ))

                (( max-- ))

        done
```

```
        max=$x

        for (( i=0; i<=max; i++ ))
        do
                rev=""
                str=${newArr[$i]}
                let "len=${#str} -1"
                for (( j=$len; j>=0; j-- ))
                do
                        rev="$rev${str:$j:1}"
                done
                newArr[$i]=$rev
        done

        echo ${newArr[@]}


Ques10


echo "Enter number : "
read n
sd=0
rev=""
on=$n
while [ $n -gt 0 ]
```

```
do

  sd=$(( $n % 10 ))

  n=$(( $n / 10 ))

  rev=$( echo ${rev}${sd} )

done


echo  "$on in a reverse order $rev"
```

==
=============

Ques1


```
echo "enter the password"

read password

len="${#password}"

if test $len -ge 8 ; then

  echo "$password" | grep -q [0-9]

  if test $? -eq 0 ; then

    echo "$password" | grep -q [A-Z]

      if test $? -eq 0 ; then

        echo "$password" | grep -q [a-z]

        if test $? -eq 0 ; then

          echo "Strong password"
```

```bash
            else
                echo "weak password include lower case char"
            fi
        else
            echo "weak password include capital char"
        fi
    else
        echo "please include the numbers in password it is weak password"
    fi
else
    echo "password lenght should be greater than or equal 8 hence weak password"
fi
```