**Practical 9**

**Q1)Print multiplication table using for loop.**

**Code:**

echo 'Multiplication Table'

echo 'Enter number: '

read num

for ((i=1; i<=10; i++))

do

a=$(($i\*$num))

echo -n $i ' X ' $num ': ' $a

echo ''

done

**Output**

Enter number:

2

1 X 2 : 2

2 X 2 : 4

3 X 2 : 6

4 X 2 : 8

5 X 2 : 10

6 X 2 : 12

7 X 2 : 14

8 X 2 : 16

9 X 2 : 18

10 X 2 : 20

Q2)

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**Code:**

echo "Enter number of rows: "

read rows

//top

for (( i=1; i<=rows; i++))

do

for(( j=i; j<rows; j++))

do

echo -n " "

done

for (( k=1; k<=((2\*i-1)); k++))

do

echo -n "\*"

done

echo

done

//bottom

for (( i=rows-1; i>=1; i--))

do

for(( j=rows; j>i; j--))

do

echo -n " "

done

for (( k=1; k<=((2\*i-1)); k++))

do

echo -n "\*"

done

echo

done

//**Output**

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Q3)**sum of the first 10 fibbonacci series**

**Code**

a=0

b=1

for (( i=0; i<10; i++))

do echo $a

echo ""

c=$(($a+$b))

sum=$(($sum+$a))

a=$b

b=$c

done

echo "Sum of the first 10 fibbonacci numbers: " $sum

**output**

0

1

1

2

3

5

8

13

21

34

Sum of the first 10 fibbonacci numbers: 88

**Q4)sum of prime numbers from 1 to 100**

**Code:**

sum=0

for (( num=2; num<=100; num++ ))

do

is\_prime=1

for (( i=2; i\*i<=num; i++ ))

do

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

is\_prime=0

break

fi

done

if (( is\_prime == 1 )); then

sum=$((sum + num))

fi

done

echo "Sum of prime numbers from 1 to 100 is: $sum"

**output**

Sum of prime numbers from 1 to 100 is: 1060