**ASSIGNMENT-1**

1. voting eligibility.

Pseudocode:

begin

Number age

Display “Enter age”

If age >=18

Display “Eligible for voting”

Else

Display “Not eligible for voting”

End If

end

Algorithm:

Step1: start

Step2: accept the age of the person.

Step3: if age is greater than or equal to 18, then display ‘you are eligible to vote’.

Step4: if age is less than 18, then display ‘you are not eligible for vote’.

Step5: stop

2.Number is prime number or not

Pseudocode:

Begin

Input num

Initialize variable temp=0

FOR loop =2 to num/2

IF num is divisible by loop

Increment temp

END IF

END FOR

IF temp is equal to 0

Return “num is prime number”

END IF

ELSE

Return “num is not prime number”

END ELSE

End

Algorithm:

Step1: start

Step2: take num as input.

Step3: initialize a variable temp to 0.

Step4: iterate a “for” loop from 2 to num/2.

Step5: if num is divisible by loop iterator, then increment temp.

Step6: if temp is equal to 0,

Return “num is prime”.

Else

Return “num is not prime”.

Step7: stop

3.Reverse the digits of a number

Pseudocode:

Begin

Output “enter any number”

Input number

Reverse =0

While (number > 0) then

Remainder = number % 10

Reverse = (reverse \*10) + remainder

Number = number//10

End while

Output “reverse of entered number is =” +reverse

End

Algorithm:

Step1: start

Step2: declare a variable n, reverse and remainder as integer

Step3: read the number n

Step4: while n not equal 0

{

Remainder = n% 10;

Reverse = reverse \* 10 + remainder;

n = n/10;

}

Step5: print reverse.

Step6: stop

4.Factorial of a given number

Pseudocode:

Begin

Input number

Set factorial: 1, i = 1

While i<=number DO COMPUTE factorial: =factorial\*i

Increase i by 1

End loop

Print factorial

End

Algorithm:

Step1: start

Step2: declare N and F as integer variable.

Step3: initialize F= 1.

Step4: enter the value of N

Step5: check whether N>0, if not then F=1.

Step6: if yes then, F=F\*N

Step7: decrease the value of N by 1

Step8: repeat step 6 and 7 until N =0

Step9: now print the value of F

Step10: stop

5.Count number of vowels in a string CITIUSTECH

Pseudocode:

Begin

String “CITIUSTECH”

Number count = 0;

For each of character in string {

If string.charAt(i) ==’a’

string.charAt(i) ==’e’

string.charAt(i) ==’i’

string.charAt(i) ==’o’

string.charAt(i) ==’u’{

count++

}}

Display “total number of vowels in string are: “+count

Algorithm:

Step1: start

Step2: declare a string CITIUSTECH, Integer count as 0

Step3: using for to repeated the all character in string

Step4: nested the if condition to check the vowels like “a,e,I,o,u”

Step5: after each vowel the count is increased

Step6: print the count

Step7: stop