**Day 1**

**ASSIGNMENTS**

1. Write a pseudocode to determine whether a person is eligible to vote or not given his/her age. The voting eligibility criteria is that the person’s age must be >= 18.

1. Write an algorithm to determine whether a number is a prime number or not.

1. Write a pseudocode to reverse the digits of a number.

1. Write an algorithm to find the factorial of a given number.

1. Write a pseudocode to count the number of vowels in the string **CITIUSTECH.**

1. Write an algorithm for each pseudocode written in assignment 1, 3 and 5.

1. Write a pseudocode for each algorithm written in assignment 2, 4 and 6.

 Answer:

**1.Pseudo code**

Start

Number age

Display ”Enter age”

if age>=18

Display “Eligible for voting”

else

Display “not eligible”

End if

Stop

**Algorithm**

Step-1.Start

Step-2.Input the number

Step-3.check if age>=18

Step-4.Display eligible

Step-5.Stop

**2.Algorithm**

Step-1.Start

Step-2.Declare number,declare i,declare and initialize count=0

Step-3.Read the number from user

Step-4.for( i=1;i<=number; i++)

Step-5.if number%i==0

Step-6.increse count by 1

Step-7.if count=2

Step-8.Display prime number

Step-9.else

Step-10.Display not a prime umber

Step-11.Stop

**Pseudocode**

Start

Input n.

i=2

answer=prime

while i<=n/2

rem=n%i

if rem is not equal to 0

i=i+1

else

answer=not prime

end while loop

output answer

Stop

**3.Pseudo code**

Start

Number no

Input no

Declare and initialize rev=0

While (no>0)

rev=rev\*10+(no%10)

no=no/10

end while

display rev

Stop

**Algorithm**

Step-1.Start

Step-2.read a number

Step-3.declare and initialize rev=0

Step-4.while number>0

Step-5.calculate number%10

Step-6.calculate rev=rev\*10+(number%10)

Step-7.calculate number=number/10

Step-8.end of while loop

Step-9.output rev

Step-10.Stop

**4.Algorithm**

step-1.Start

step-2.Enter an integer

step-3.read the integer & assign some value

step-4.from the value of the integer upto 1,multiply each digit & update the final value

step-5.display the final value

step-6.Stop

**Pseudocode**

Start

Input no

Initialize fact=1

Declare i

For( i=1;i<=no;i++)

fact=fact\*i

end of for loop

display fact

Stop

**5.Pseudo code**

Start

Create a variable (count) initialize it with 0

Compare each character in CITIUSTECH with the characters{‘a’,’e’,’I’,’o’,’u’}

If equal then increment the count by 1.

Print the count

Stop

**Algorithm**

Step-1.Start

Step-2.declare & initialize count=0

Step-3.compare each character in CITIUSTECH with {‘a’,’e’,’I’,’o’,’u’}

Step-4.If equal then count++

Step-5.display count

Step-6.Stop