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.

**Pseudo code:**

Start

Number age

Display “enter age”

if age>=18

Display “Eligible for voting!”

else

Display “Not eligible for voting”

End if

Stop

**Algorithm:**

Step1: Start

Step2: Accept the age of the person

Step 3: 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 to vote”

Step5: Stop

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

**Pseudo code:**

Input N

i=2

ans=prime

while i<=n/2

rem=n%i

if rem is not equal to 0

i=i+1

else

ans=not prime

end while loop

output ans

**Algorithm:**

Step 1: Take num as input

Step2: Initialize a variable temp to 0

Step 3: Iterate a “for” loop from 2 to num/2.

Step4: If num is divisible by loop iterator, then increment temp

Step 5 : if the temp is equal to 0,

Return “num is prime”

Step 6: Else,

Return “num is not prime”

Step 7: Stop

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

**Pseudo code:**

Output “Please enter any number”

Input number

Reverse=0

While(number>0)then

Reminder=number%10

Reverse=(reverse\*10)+Reminder

Number=number//10

End while

Output reverse of entered number is =+reverse

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

**Algorithm:**

Step1: Start

Step2: Ask the user to enter an integer and assign it to a variable

Step3: Read the integer and assign it to a variable

Step4: From the value of the integer up to 1, multiply each digit and update the final value

Step5: The final value at the end of all the multiplication till 1 is the factorial

Step6: End

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

**Pseudo code:**

Initialize count as 0

Iterate the string using loop till character compare each character with vowels{‘a’,’e’,’I’,’o’,’u’}

If equal

Icrement count by 1

Finally, print the count.

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

**5)Algorithm**

Step1: Initialize the variables

Step2: Accept the input

Step3: Initialize for loop

Step4: Check and Count the vowels

Step5: Terminate the loop

Step6: print total count

**3)Algorithm:**

Step1: Ask the user to enter any number

Step2: Declare and initialize another variable reversed with 0,where reversed an integer varaiable.

Step3: Get the last digit of the given number by performing the modulo division(%) and store the last variable, likely last=number%10

Step4: Multiply reversed by 10 ad last, like reversed=reversed\*10+last

Step5: Divide numbered by 10, like numbered/10

Step6: Repeat the step3to5 till numbered is not equal to (or greater than )zero.

1. **Algorithm:**

Step1: Start

Step2: Accept the age of the person

Step 3: 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 to vote”

Step5: Stop

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

**2)Pseudo code:**

Input N

i=2

ans=prime

while i<=n/2

rem=n%i

if rem is not equal to 0

i=i+1

else

ans=not prime

end while loop

output ans

**4)Pseudocode**

Declare N and F as integer variables

Initialise F=1

Enter the value of n

Check whether N>0,if not then F=1.

If yes then,F=F\*N

Decrease the value of N by 1

Repeat step 4 and 5 until N=0.

Now print the value of F