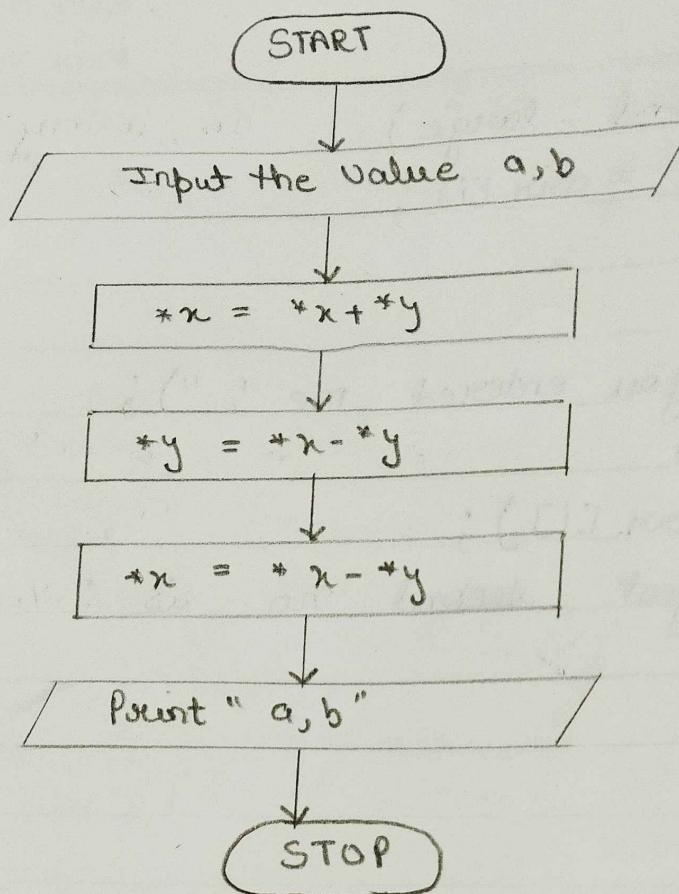


1.



OUTPUT:

Value of $a : 5$ and $b : 10$

Swap the value $a : 10$ and $b : 5$.

POINTER

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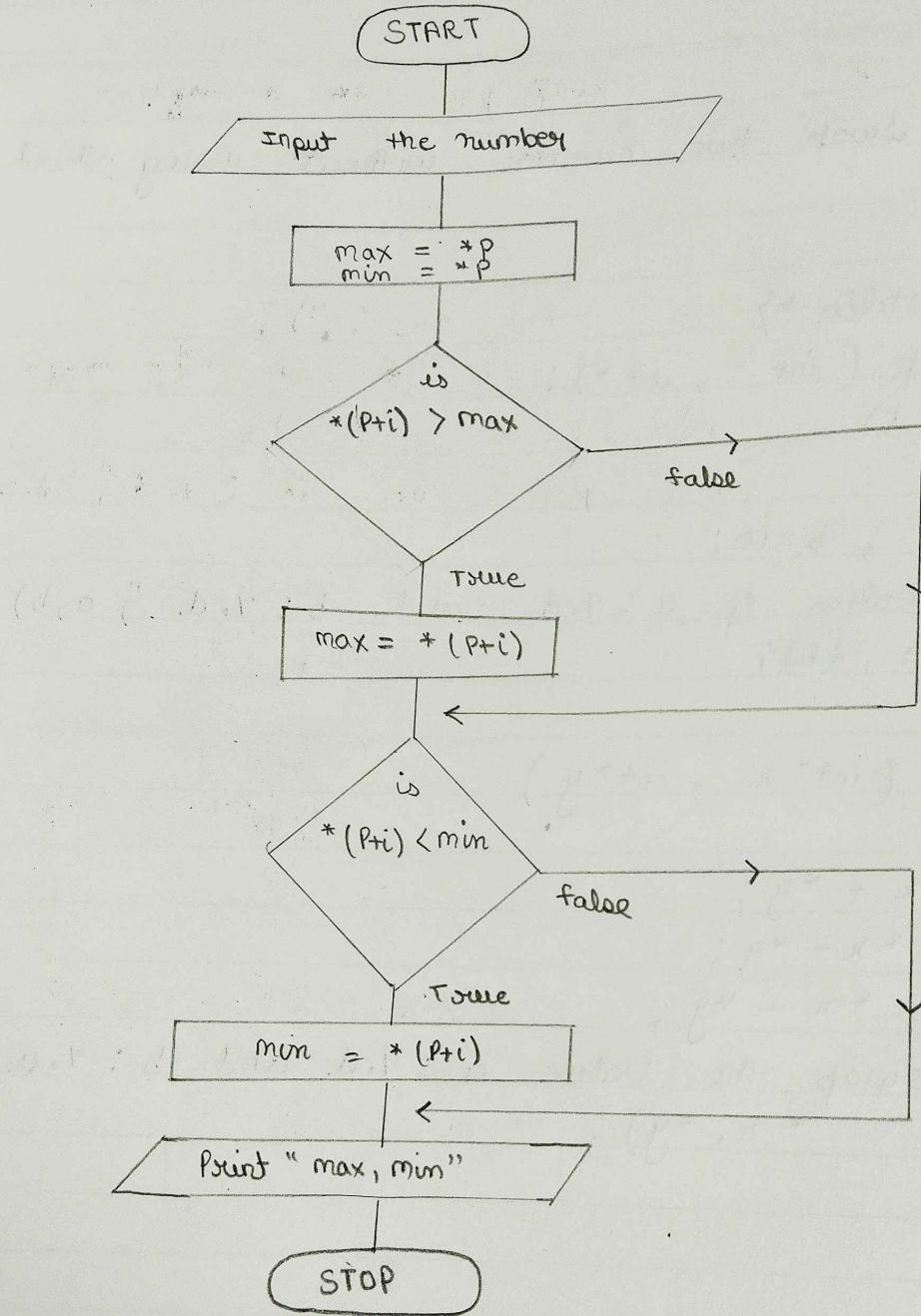
Q3.

WAP to Swap two numbers without using third Variable.

```
#include <stdio.h>
Void swap ( int * , int * );
Void main ()
{
    int a=5 , b=10;
    Printf (" Value of a:%.d and b:%.d ", a,b);
    Swap (&a , &b);
}

Void swap ( int *x , int *y )
{
    *x = *x + *y;
    *y = *x - *y;
    *x = *x - *y;
    Printf (" swap the value a:%.d and b:%.d ",
           *x , *y);
}
```

3.



OUTPUT:

Enter the number : 1 2 3 4 5 6 7 8 9 10

max of no:10 and min. of no:1.

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Q2.

WAP to find max or min. element in an array
using Pointer:

```
# include <stdio.h>
```

```
Void main ()
```

{

```
int a[50] , max , min , i=0 , *p;  
p=a;
```

```
Pointf (" Enter the number : ");
```

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

```
{  
    scanf ("%d", p+i);
```

```
    Max = *p;
```

```
    min = *p;
```

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

```
{
```

```
if (* (p+i) > max)
```

```
{
```

```
    max = * (p+i);
```

```
}
```

```
if (* (p+i) < min)
```

```
{
```

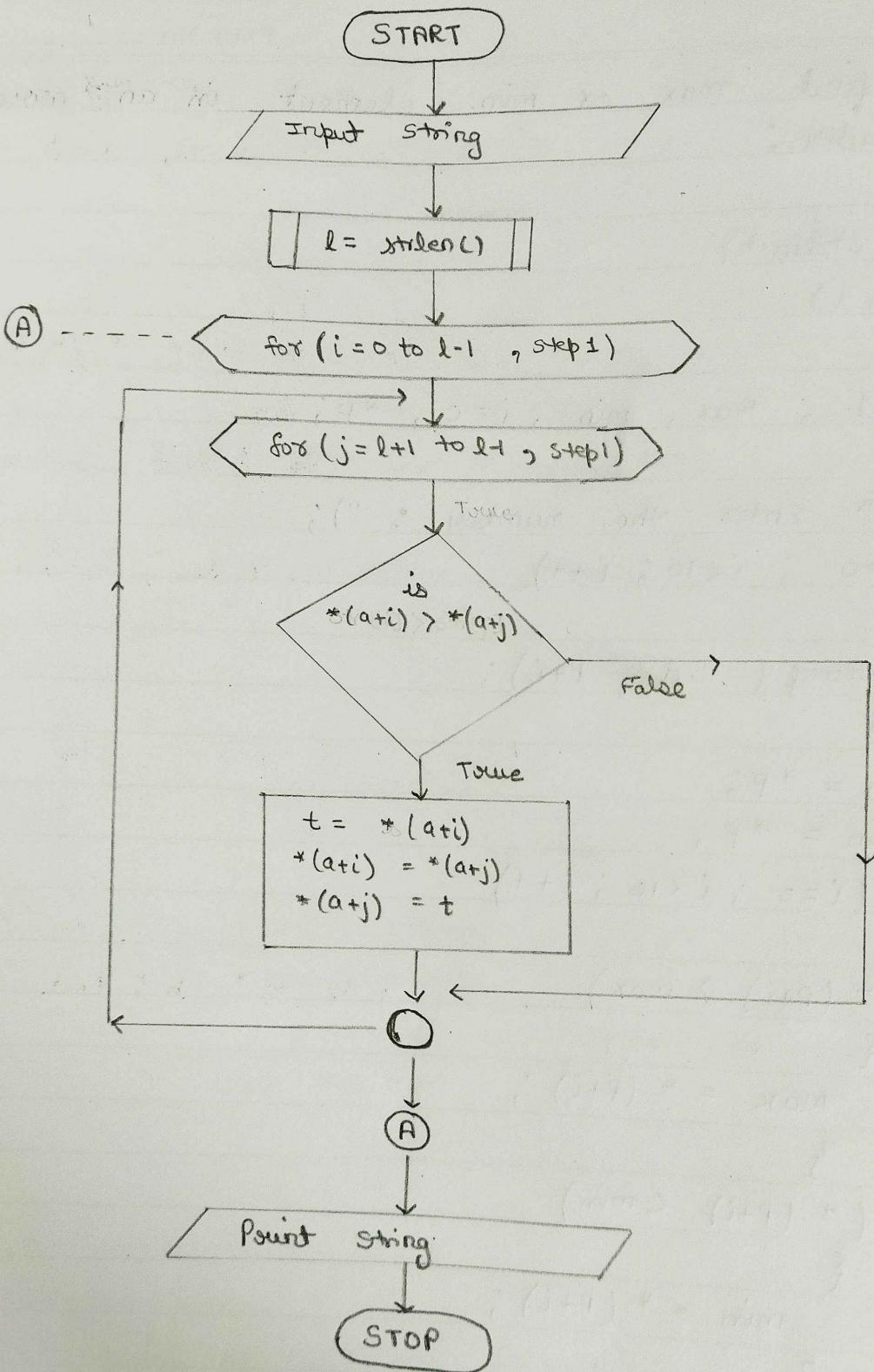
```
    min = * (p+i);
```

```
}
```

```
{
```

```
Pointf (" max of no : %d and min. of no : %d ", max , min);
```

```
}
```



Q3. Developed a program to show swapping operation on an array using pointer.

```
i. #include <stdio.h>
Void main()
{
    int *a, i, j, temp, n;
    Pointf (" Enter the number : ");
    Scanf ("%d", &n);
    Pointf (" Input the element of an array %d : \n");
    for (i=0; i<n; i++)
    {
        Pointf (" -element : %d ", i+1);
        Scanf ("%d", a+i);
    }
    for (i=0; i<n; i++)
    {
        for (j=i+1; j<n; j++)
        {
            If (* (a+i) > * (a+j))
            {
                temp = * (a+i);
                * (a+i) = * (a+j);
                * (a+j) = temp;
            }
        }
    }
}
```

* OUTPUT:

Enter the element : 5

Input the element of an array : 5

element 1 : 15

element 2 : 5

element 3 : 1

element 4 : 20

element 5 : 25

Showing of an array :

element 1 : 1

element 2 : 5

element 3 : 15

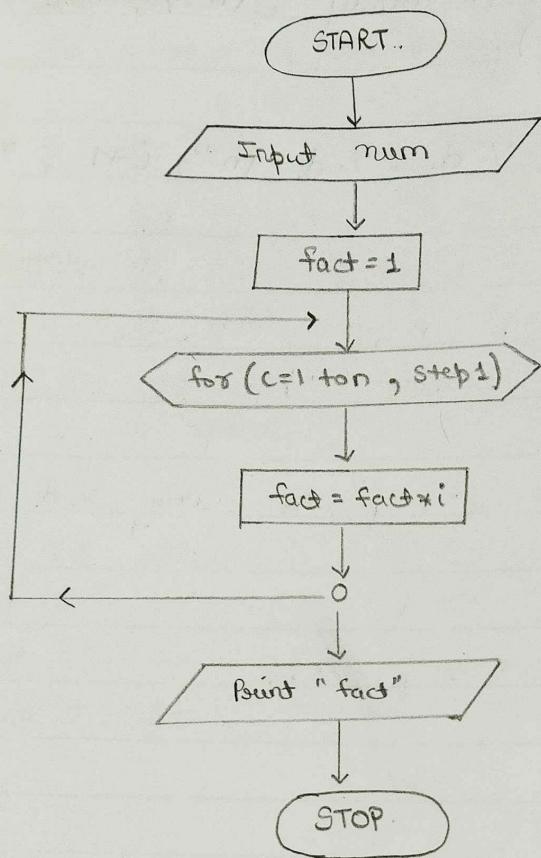
element 4 : 20

element 5 : 25

printf (" showing of an array : \n");
for (i=0 ; i<n ; i++)
{ }

printf (" - element %.d : %.d \n", i+1 , * (a+i));
}
}

* flowchart :



OUTPUT :

Enter the number : 5

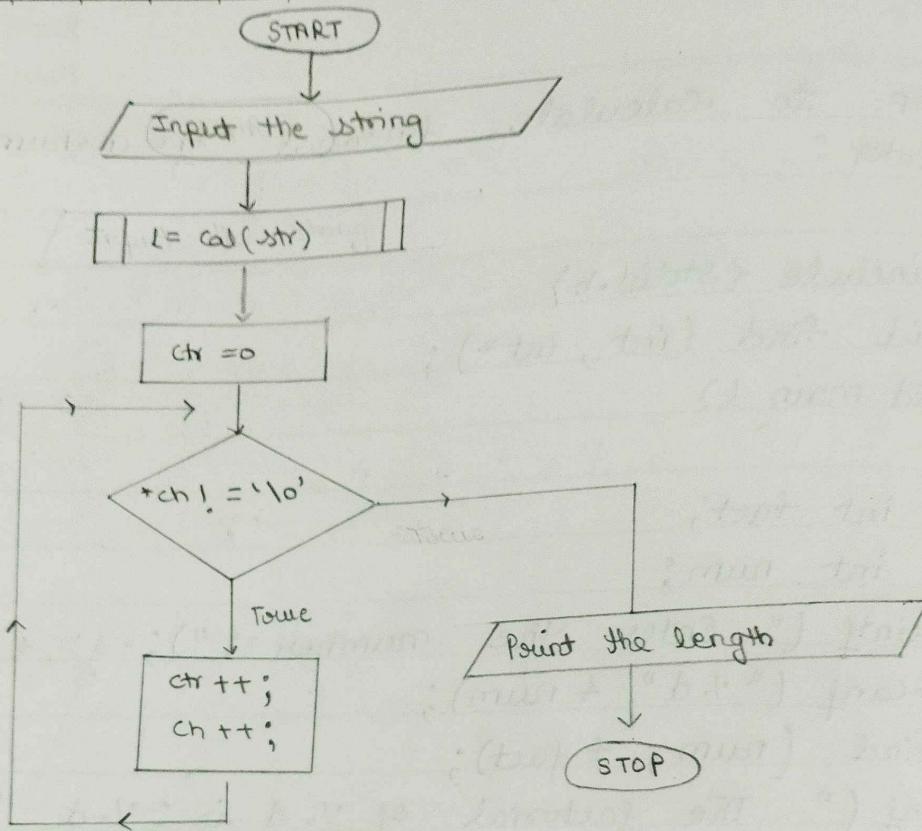
the factorial of 5 is : 120.

Q1. WAP to calculate factorial of a number using
Pointer :

```
# include <stdio.h>
Void find (int , int * );
Void main ()
{
    int fact;
    int num;
    Pointf (" Enter the number : ");
    Scanf ("%d", &num);
    find (num, &fact);
    Pointf (" The factorial of %d is : %d ", num, fact);
}
```

```
Void find (int n, int *f)
{
    int i;
    *f = 1;
    for (i=1; i<=n; i++)
    {
        *f = *f * i ;
    }
}
```

* flowchart:



* OUTPUT:

Input a string : Hello
 The length of string Hello is : 5

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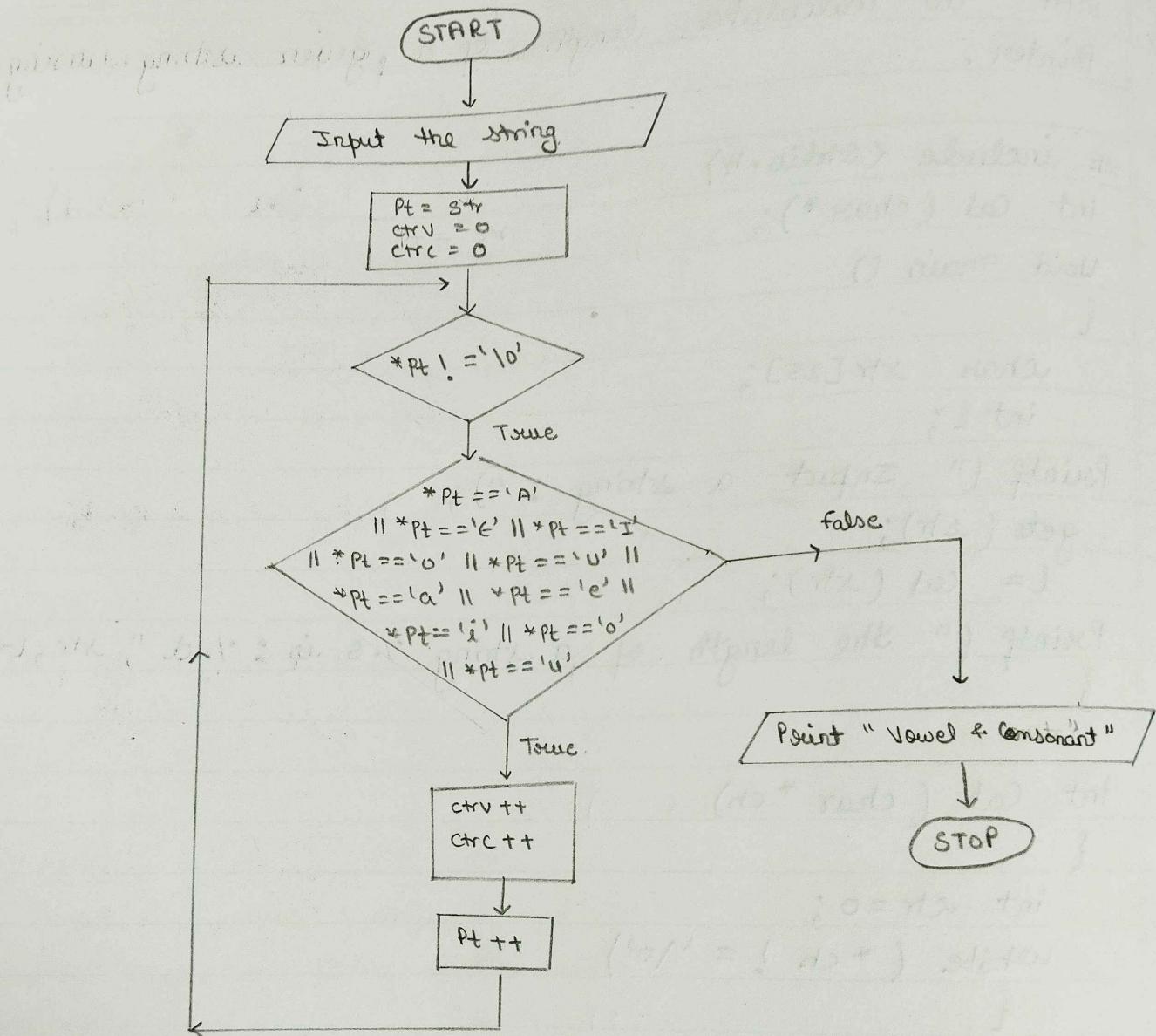
Q2. WAP to calculate length of a given string using
Pointer.

```
# include <stdio.h>
int cal (char* );
Void main ()
{
    char str[25];
    int l;
    printf (" Input a string : ");
    gets (str);
    l= cal (str);
    printf (" The length of a string %s is : %d ", str, l);
}
```

```
int cal (char *ch)
{
    int ctr=0;
    while (*ch != '\0')
    {
        ctr++;
        ch++;
    }
    return ctr;
}
```

TEACHER'S SIGNATURE _____

* flowchart:



* OUTPUT:

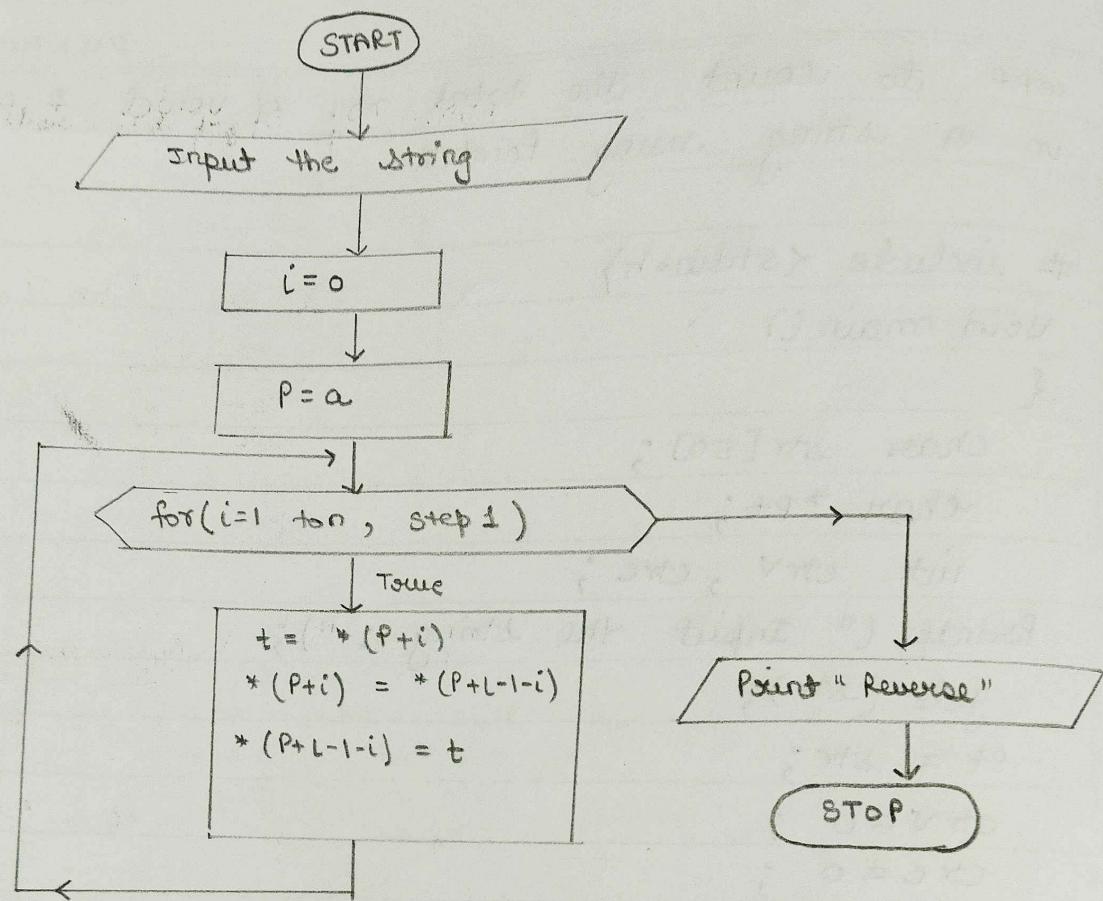
Input the string: APPLE

no. of vowel : 2 and consonant : 3.

Q5. WAP to count the total no. of vowel & consonant in a string using pointer.

```

#include <stdio.h>
Void main()
{
    char str[50];
    char *pt;
    int ctrv, ctrc;
    printf (" Input the string : ");
    gets (str);
    pt = str;
    ctrv = 0;
    ctrc = 0;
    while (*pt != '\0')
    {
        if ((*pt == 'A') || (*pt == 'E') || (*pt == 'I') || (*pt ==
            'O') || (*pt == 'U') || (*pt == 'a') || (*pt == 'e') ||
            (*pt == 'i') || (*pt == 'o') || (*pt == 'u'))
        {
            ctrv++;
        }
        else
        {
            ctrc++;
        }
    }
    printf (" No. of vowel : %.d & consonant : %.d ", ctrv, ctrc);
}
  
```



Q4. C program to Reverse a string using Pointer.

```
# include <stdio.h>
Void main ()
{
    char a[50], t, *p;
    int l, i=0;
    p = a;
    printf (" Enter the number : ");
    gets (p);
    l = strlen (p);
    for (i=0 ; i<l/2 ; i++)
    {
        t = *(p+i);
        *(p+i) = *(p+l-i-1);
        *(p+l-i-1) = t;
    }
    puts (p);
}
```

OUTPUT:

Enter the number : 123456789
987654321