Experiment :-4D

PROGRAM:-

```c
#include<stdio.h>  #include<string.h>
void main()
{
        char s[100];            int
i,flag,flag1,a,b;        int
l,count1,count2;      printf("enter
a string to check:");
        scanf("%s",s);
        l=strlen(s);
flag=1;
        for(i=0;i<l;i++)
        {
                if(s[i]!='0' && s[i]!='1')
                {
                   flag=0;
                }
        }
        if(flag!=1)
                printf("string is Not Valid\n");
        if(flag==1)
        {
                i=0;count1=0;
                while(s[i]=='0') // Count the no of 0s in the front
                {

count1++;
i++;
                }
                while(s[i]=='1')
                {
                        i++; // Skip all 1s
                }
                flag1=1;
        count2=0;
        while(i<l)
                {
                        if(s[i]=='0')// Count the no of 0s at the end
                        {
                                count2++;
                        }
        else                    {
                        flag1=0;
                        }
```

```c
                i++;
```

```c
            }
      if(flag1==1)
            {
                  if(count1==count2)
                  {
                        printf("The string satisfies the condition
                  0n1m0n\n");          printf ("String Accepted\n");
                  }
                  else
                  {
                        printf("The string does not satisfy the condition
                  0n1m0n\n");       printf("String Not Accepted\n");
                  }
            }
            else
                  {       printf("The string does not satisfy the condition
            0n1m0n\n");
            printf("String Not Accepted\n");
                  }
      }
}
```

OUTPUT:-

```
enter a string to check:0000110000
The string satisfies the condition 0n1m0n
String Accepted

Process returned 0 (0x0)   execution time : 12.437 s
Press any key to continue.
```

```
enter a string to check:000111010
The string does not satisfy the condition 0n1m0n
String Not Accepted

Process returned 0 (0x0)   execution time : 5.875 s
Press any key to continue.
```

```
enter a string to check:10aabb01
string is Not Valid

Process returned 0 (0x0)   execution time : 6.329 s
Press any key to continue.
```