

Experiment No: 1 (a)

NAME OF THE EXPERIMENT: Bit Stuffing.

AIM: Write a C program to implement the data link layer framing methods such as bit stuffing.

Source Code:

```
#include<stdio.H>
#include<conio.H>
#include<string.h>
void main()
{
    int a[20],b[30],i,j,k,count,n;
    clrscr();
    printf("enter frame length:");
    scanf("%d",&n);
    printf("enter input frame(0's&1's
only):");
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
    i=0;count=1;j=0;
    while(i<n)
    {
        if(a[i]==1)
        {
            b[j]=a[i];
```

```
for(k=i+1;a[k]==1&& k<n&&count<5;k
++)
{
    j++;
    b[j]=a[k];
    count++;
    if(count==5)
    {
        j++;
        b[j]=0;
    }
    i=k;
}
else
{
    b[j]=a[i];
}
i++;
j++;
}
printf("After stuffing the frame is:");
for(i=0;i<j;i++)
printf("%d",b[i]);
getch();
}
```

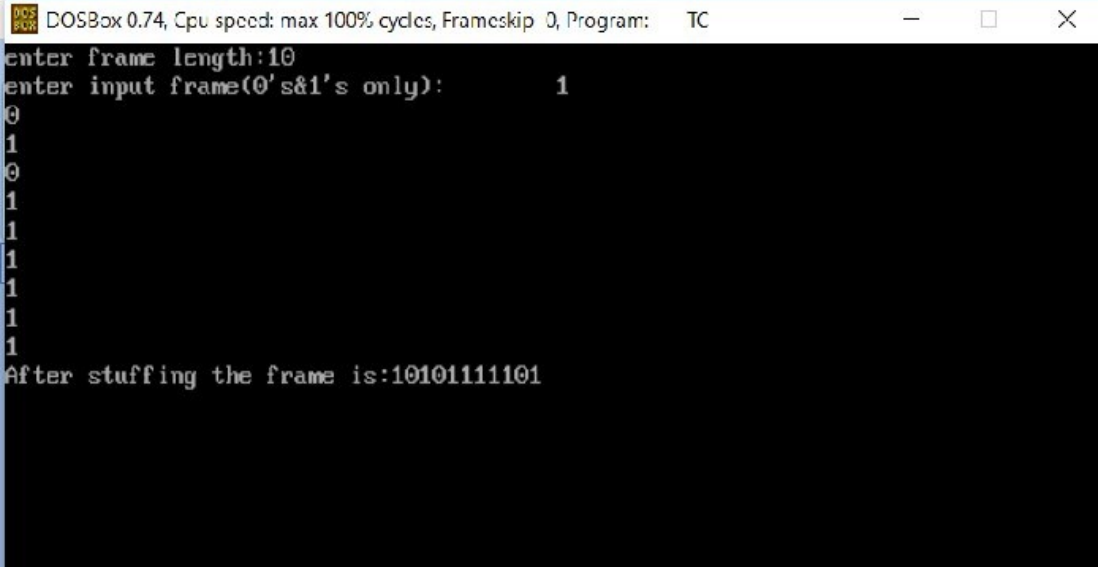
Output:

Enter the number
of bits: 10

1
0
1
0
1
1
1
1
1
1
1

Data after stuffing: 10101111101

OUTPUT CONSOLE:



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
enter frame length:10
enter input frame(0's&1's only): 1
1
0
1
0
1
1
1
1
1
1
1
After stuffing the frame is:10101111101
```