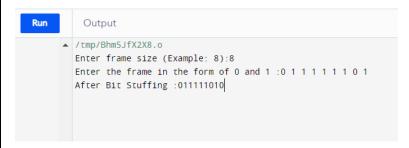
LAB 6

1. Write a code to perform bit stuffing and byte stuffing.

Bit Stuffing using C language:-

```
#include<stdio.h>
#include<string.h>
int main()
{
  int a[20],b[30],i,j,k,count,n;
  printf("Enter frame size (Example: 8):");
  scanf("%d",&n);
  printf("Enter the frame in the form of 0 and 1 :");
  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 Bit Stuffing :");
  for(i=0; i<j; i++)
     printf("%d",b[i]);
  return 0;
}
Output:-
```



Byte Stuffing using C language:-

```
#include<stdio.h>
#include<string.h>
void main(){
char frame[50][50],str[50][50];
char flag[10];
strcpy(flag,"flag");
char esc[10];
strcpy(esc,"esc");
int i,j,k=0,n;
```

```
strcpy(frame[k++],"flag");
printf("Enter no.of String :\t");
scanf("%d",&n);
printf("Enter String \n");
for(i=0;i<=n;i++)
 {
 gets(str[i]);
 }
printf("You entered :\n");
for(i=0;i<=n;i++)
  {
 puts(str[i]);
 }
printf("\n");
for(i=1;i<=n;i++)
 {
   if(strcmp(str[i],flag)!=0 && strcmp(str[i],esc)!=0)
      {
           strcpy(frame[k++],str[i]);
   }
   else
 {
       strcpy(frame[k++],"esc");
      strcpy(frame[k++],str[i]);
     }
 }
strcpy(frame[k++],"flag");
printf("Byte stuffing at sender side:\n\n");
for(i=0;i<k;i++)
```

```
printf("%s\t",frame[i]);
}

Output-
Enter no.of String : 3
Enter String
Vaibhavi
sweta
ujjwal
You entered :

Vaibhavi
sweta
ujjwal
Byte stuffing at sender side:
```

ujjwal flag

sweta

flag

Vaibhavi