

PRACTICAL NO-5

Name: Saloni Vishwakarma

Batch: C1

Roll no: 13

Aim: Write a c program for bit stuffing and character stuffing.

Bit Stuffing:

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main() {
    int i, j, count=0, nl;
    char str[100];
    clrscr();
    printf("enter the bit string: ");
    gets(str);
    for (i=0; i<strlen(str); i++) {
        count=0;
        //the following code search the six ones in given string
        for (j=i; j<=(i+5); j++) {
            if(str[j]=='1') {
                count++;
            }
        }
        //if there is six ones then folling code execute to bit stuffing after five ones
        if(count==6) {
            nl=strlen(str)+2;
            for (; nl>=(i+5); nl--) {
                str[nl]=str[nl-1];
            }
            str[i+5]='0';
            i=i+7;
        }
    }
    puts(str);
    getch();
}
```

```

main.c: In function 'main':
main.c:8:1: warning: 'gets' is deprecated [-Wdeprecated-declarations]
    8 | gets(str);
      | ^~~~
In file included from main.c:1:
/usr/include/stdio.h:577:14: note: declared here
   577 | extern char *gets (char *__s) __wur __attribute_deprecated__;
      |                  ^~~~
/usr/bin/ld: /tmp/ccU4qrfK.o: in function 'main':
main.c:(.text+0x42): warning: the 'gets' function is dangerous and should not be used.
enter the bit string: 11111100010
111110100010

...Program finished with exit code 0
Press ENTER to exit console.

```

Character Stuffing:

```

#include<stdio.h>

int main()
{
    int n,i,x=0;

    printf("Enter the length of input: ");
    scanf("%d",&n);
    printf("\nFlag is: f");
    printf("\nESC character is: e");
    char a[n],b[100];
    printf("\nEnter your string: ");
    scanf("%s",a);
    for(i=0;i<n;i++)
    {
        if(a[i]=='f' || a[i]=='e')
        {
            b[i+x]='e';

            x++;

            n++;
        }
    }
}

```

```
    }  
    b[i+x]=a[i];  
}  
printf("Your payload is: %s",b);  
return 0;  
}
```

```
Enter the length of input: 4  
  
Flag is: f  
ESC character is: e  
Enter your string: file  
Your payload is: efilee  
  
...Program finished with exit code 0  
Press ENTER to exit console.□
```