**[2CEIT503: COMPUTER NETWORK]**

Practical: 4



**AIM: Write a program to implement various framing techniques.**

**a. Bit Stuffing**

**b. Byte Stuffing**



**Department of Computer Engineering/Information Technology**

**Q.1 Byte Stuffing**

flag=input("Enter flag: ")

esc\_char=input("Enter ESC Character: ")

data=input("Enter Data: ")

byte\_stuff=[]

byte\_stuff.append(flag)

for i in data:

    if(i==flag or i==esc\_char):

        byte\_stuff.append(esc\_char)

    byte\_stuff.append(i)

byte\_stuff.append(flag)

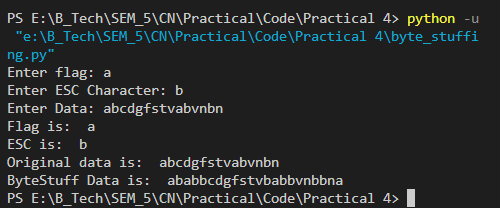
print("Flag is: ",flag)

print("ESC is: ",esc\_char)

print("Original data is: ",data)

print("ByteStuff Data is: ","".join(byte\_stuff))

**Output:**

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**Q.2 Bit Stuffing**

flag = "01111110"

data=list(input("Enter Data: "))

print("Flag is: ",flag)

print("Original Data is: ","".join(data))

for i in range(0,len(data)):

    if(data[i]=='1'):

        f=1

        for j in range(1,6):

            if(flag[j]!=data[i]):

                f=0

                break

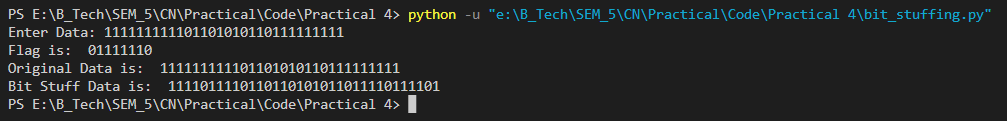
            i=i+1

        if(f==1):

            data.insert(i-1,'0')

print("Bit Stuff Data is: ","".join(data))

**Output:**

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