

EXPERIMENT - 4

Q12. IMPLEMENT BYTE / CHARACTER STUFFING

AIM: To implement character stuffing

ALGORITHM: Byte stuffing is inserting flag bytes at start and end of frame and escape sequences before a flag or escape byte in message

CODE:

```
#include <stdio.h>
```

```
#include <conio.h>
```

```
void main()
```

```
{ char frame[100], str[50];
```

```
char flag = 'Z';
```

```
char esc = 'X';
```

```
int i, j, k = 0;
```

```
frame[k++] = 'Z';
```

```
printf("Enter string\n");
```

```
gets(str);
```

```
for (j = 0; j < strlen(str); j++)
```

```
{ if (str[j] == flag || str[j] == esc)
```

```
frame[k++] = str[j];
```

else

```
{  
    frame[k++] = '\x';  
    frame[l++] = str[j];  
}
```

```
frame[k++] = 'z';
```

```
frame[l++] = '\0';
```

```
printf("\n Byte stuffing at sender  
side: \n");
```

```
for(j=0; j<k; j++)
```

```
    printf("%d", frame[j]);
```

```
printf("\n Byte stuffing at receiver side  
\n");
```

```
for(i=0; i<k; i++)
```

```
{  
    if (frame[i] == '\x' || frame[i] == 'z')  
        i++;  
    printf("%d", frame[i]);  
}
```

```
}
```

Q/P.

Inter string
abc2dxc4

Byte stuffing at sender side.

2 0x X 2 dxc4

Byte stuffing at receiver side.

abc2dxc4

