Date
Page

LAB-13

Aim:- WAP for congestion control using bucket algorithm

Procedure:-

```
#Include <stdio.h>
# Include <stdlib.h>
#define capacity 50
void main () {
  int timeLimit = 10;
  int bucketCapacity = 0, outputRate = 5;

while (timeLimit < 20) {
   Int newPacket;
   pf("enter new packet size:");
   scanf("%d", &newPacket);

if (newPacket < capacity ) && {
   bucketCapacity = bucketCapacity + newPacket;
   pf(" bucket Capacity currently: %d",
        bucketCapacity );
   bucketCapacity = bucketCapacity - outputRate;
pf(" bucket capacity after output: %d",
      -bucketCapacity );
.timeLimit ++;
}
else if (newPacket > capacity || (newPacket +
bucketCapacity) > capacity) {
pf("New packet cannot be added
   to bucket");
```

```
bucketCapacity = bucketCapacity - outputRate;
pf("after output: %d", bucketCapacity);
}
else if (bucketCapacity < 0) {
    bucketCapacity = 0;
pf("bucket Capacity after output: %d",
    bucketCapacity);
    timeLimit++
    exit(0)
  }
}
}
```

Output

Enter no. of queries, buffer size, input and output packet size

4
7
4
1

Packet accepted
remaining space = 3
packet is accepted
remaining space = 0
Packet not accepted
remaining space = 1
remaining space = 2

```
Enter the dataword
1 0 1 1 0 0 1 1 1 1 0 0 1 0 1 1 1
Enter dividend
1 0 0 0 1 0 0 0 0 0 0 1 0 0 1 1
1
Codeword: 10110011110010111000000000011011
At receiver end
Codeword: 10110011110010111000000000000000
Process returned 1 (0x1)   execution time : 53.976 s
Press any key to continue.
```