LABORATORY PROGRAM – 14

Write a program for congestion control using Leaky bucket algorithm.

Code

```
# Getting user inputs
storage = int(input("Enter initial packets in the bucket: ")) no_of_queries =
int(input("Enter total no. of times bucket content is checked: ")) bucket_size =
int(input("Enter total no. of packets that can be accommodated in the bucket:
"))
input_pkt_size = int(input("Enter no. of packets that enters the bucket at a time: "))
output_pkt_size = int(input("Enter no. of packets that exits the bucket at a time: "))

for i in range(no_of_queries):  # space
left     size_left = bucket_size - storage
if input_pkt_size <= size_left:
       # update storage         storage +=
input_pkt_size     else:         print("Packet
loss =", input_pkt_size)

   print(f"Buffer size = {storage} out of bucket size = {bucket_size}")

   # as packets are sent out into the network, the size of the storage decreases
storage -= output_pkt_size
```

Output

```
Enter initial packets in the bucket: 0
Enter total no. of times bucket content is checked: 4
Enter total no. of packets that can be accommodated in the bucket: 10
Enter no. of packets that enters the bucket at a time: 4
Enter no. of packets that exits the bucket at a time: 1
Buffer size = 4 out of bucket size = 10
Buffer size = 7 out of bucket size = 10
Buffer size = 10 out of bucket size = 10
Packet loss = 4
Buffer size = 9 out of bucket size = 10
```