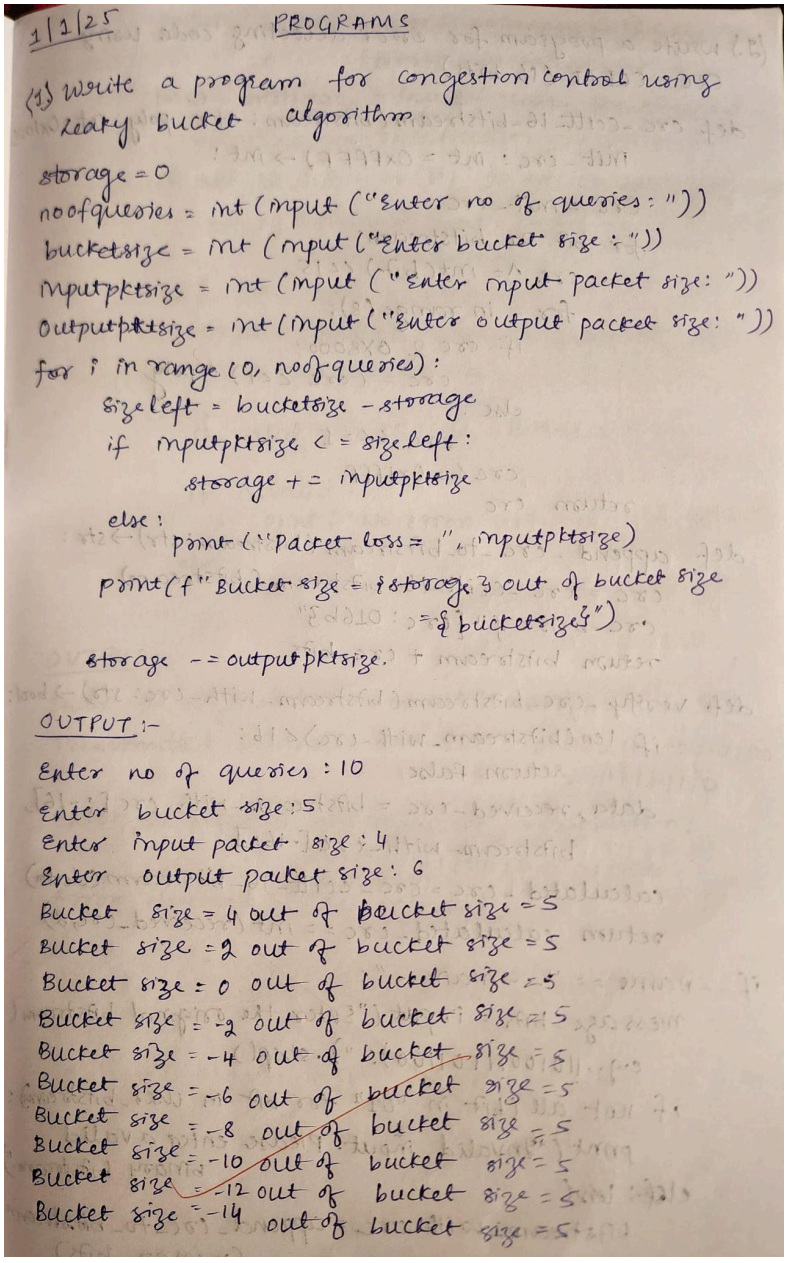
1/1/25 Experiment-14

Program 2:

Question:

Write a program for congestion control using Leaky bucket algorithm.



1/1/25 PROGRAMS

(1) Write a program for congestion control using Leaky bucket algorithm.

```
storage = 0
noofqueries = int(input("Enter no of queries: "))
bucketsize = int(input("Enter bucket size: "))
inputpktsize = int(input("Enter input packet size: "))
Outputpktsize = int(input("Enter output packet size: "))
for i in range(0, noofqueries):
    sizeleft = bucketsize - storage
    if inputpktsize <= sizeleft:
        storage += inputpktsize
    else:
        print("Packet loss = ", inputpktsize)
    print(f"Bucket size = {storage} out of bucket size
                = {bucketsize}")
    storage -= outputpktsize.
```

OUTPUT :-

```
Enter no of queries : 10
Enter bucket size : 5
Enter input packet size : 4
Enter output packet size : 6
Bucket size = 4 out of bucket size = 5
Bucket size = 2 out of bucket size = 5
Bucket size = 0 out of bucket size = 5
Bucket size = -2 out of bucket size = 5
Bucket size = -4 out of bucket size = 5
Bucket size = -6 out of bucket size = 5
Bucket size = -8 out of bucket size = 5
Bucket size = -10 out of bucket size = 5
Bucket size = -12 out of bucket size = 5
Bucket size = -14 out of bucket size = 5
```

Code:

```
storage=0
noofqueries=int(input("Enter no of queries:"))
bucketsize=int(input("Enter bucket size:"))
```

```
inputpktsize=int(input("Enter input packet size:"))
outputpktsize=int(input("Enter output packet size:"))
for i in range(0,noofqueries):
   sizeleft=bucketsize-storage
   if inputpktsize<=sizeleft:
      storage+=inputpktsize
   else:
      print("Packet loss=", inputpktsize)
   print(f"Bucket size={storage}out of bucket size={bucketsize}")
   storage-=outputpktsize
```

Output:

```
PS C:\Users\Dell\OneDrive\Desktop\code> python leakybucketalgorithm.py
Enter no of queries:10
Enter bucket size:5
Enter input packet size:4
Enter output packet size:6
Bucket size=4out of bucket size=5
Bucket size=2out of bucket size=5
Bucket size=0out of bucket size=5
Bucket size=-2out of bucket size=5
Bucket size=-4out of bucket size=5
Bucket size=-6out of bucket size=5
Bucket size=-14out of bucket size=5
```