

6. Write a program for congestion control using leaky bucket algorithm.

```
import java.util.Scanner;
```

```
public class LeakyBucket {
    public static void main(String[] args) throws InterruptedException {
        int n, incoming, outgoing, store = 0, bucketSize;

        Scanner scan = new Scanner(System.in);
        System.out.println("Enter bucket size, outgoing rate, number of inputs and incoming size");
        bucketSize = scan.nextInt();
        outgoing = scan.nextInt();
        n = scan.nextInt();
        incoming = scan.nextInt();

        while (n != 0) {
            System.out.println("Incoming size is " + incoming);

            if (incoming <= (bucketSize - store)) {
                store += incoming;
                System.out.println("Bucket buffer size is " + store + " out of " + bucketSize);
            } else {
                System.out.println("Packet loss : " + (incoming - (bucketSize - store)));
                store = bucketSize;
                System.out.println("Bucket buffer size is " + store + " out of " + bucketSize);
            }

            store -= outgoing;
            System.out.println("After outgoing: " + store + " packets left out of " + bucketSize + " in
buffer");
            n--;

            Thread.sleep(3000);
        }

        scan.close();
    }
}
```