Prog 8. Write a program for congestion control using leaky bucket algorithm.

Soln:

```
import java.util.Scanner;
public class LeakyBucket
{
static int min(int x,int y)
{
if(x<y)
return x;
else
return y;
}
public static void main(String[] args)
{
int drop=0,mini,nsec,cap,count=0,i,process;
int inp[]=new int[25];
Scanner sc=new Scanner(System.in);
System.out.println("Enter The Bucket Size\n");
cap= sc.nextInt();
System.out.println("Enter The Operation Rate\n");
process= sc.nextInt();
System.out.println("Enter The No. Of Seconds You Want To Stimulate\n");
nsec=sc.nextInt();
for(i=0;i<nsec;i++)
{
System.out.print("Enter The Size Of The Packet Entering At "+ i+1+"sec");
inp[i] = sc.nextInt();
```

```
}
System.out.println("\nSecond | Packet Recieved | Packet Sent | Packet Left | Packet Dropped|\n");
//System.out.println(" \n");
for(i=0;i<nsec;i++)
{
count+=inp[i];
if(count>cap)
{
drop=count-cap;
count=cap;
}
System.out.print(i+1);
System.out.print("\t\t"+inp[i]);
mini=min(count,process);
System.out.print("\t\t"+mini);
count=count-mini;
System.out.print("\t\t"+count);
System.out.print("\t\t"+drop);
drop=0;
System.out.println();
}
for(;count!=0;i++)
{
if(count>cap)
{
drop=count-cap;
```

```
count=cap;
}
System.out.print(i+1);
System.out.print("\t\t0");
mini=min(count,process);
System.out.print("\t\t"+mini);
count=count-mini;
System.out.print("\t\t"+count);
System.out.print("\t\t"+drop);
System.out.println();
}
}
}
```