**Experiment No. 5**

**SAP Id: 500083382**

**Batch: B5-H**

**Name of the Student: Anurag Singh**

**Task: Design a program for pure aloha protocol**

**Code**

#include <stdio.h>

#include <math.h>

#include <time.h>

#define FRAME\_TIME 250

int main()

{

float S1, S2, G, J, val[100];

int I, n, K, delay;

void wait();

clrscr();

printf("Please Give the Total Load : ");

scanf("%d", &n);

printf("Please Enter the value of load \n");

for (I=0; I<n; I++)

{

scanf("%f", &val[I]);

}

printf("\nOUTPUT 1: (THROUGHPUT Vs LOADCURVE)\n\n");

printf("s=g\*exp(-G) FOR SLOTTED ALOHA \* \n");

printf("s=g\*exp(-2G) FOR PURE ALPHA #\n")

printf("\n------ (THROUGHPUT PER FRAME TIME)----\n");

for(K=0; K<n; K++)

{

G=val[K];

S1 = G \* exp (-G);

S2 = G \* exp(-2 \* G);

printf("%1.3f", G );

for (I=0; I <=S1\*20; I++)

{

printf(" ");

}

printf("\*");

for(I=S2\*20; I<=S2\*75; I++ )

{

printf(" ");

}

printf("#\n");

}

printf("G (ATTEMPTS PER PACKET TIME) \n\n");

wait();

getch();

clrscr();

printf("\nOUTPUT 2 (DELAY Vs THROUGHPUT) \n\n");

printf("\n-----(THOUGHPUT PER FRAME TIME)----\n");

for(K=0; K<n; K++)

{

G=val[K];

S1 = G \* exp (-G);

printf("3");

for (I=0; I <=S1\*2.7; I++)

{

printf(" ");

}

printf("\*\n");

}

printf("\n");

printf("---- DELAY -----");

wait();

getch();

clrscr();

}

void wait()

{

sound(440);

delay(300);

nosound();

}

**Screenshot**

