**Experiment no: 7**

**Title:** Implementation of mutual exclusion algorithm.

**Code:**

#include<stdio.h>

#include<conio.h>

#include<dos.h>

#include<time.h>

void main()

{

int

cs=0,pro=0;

double run=5;

char key='a';

time\_t t1,t2;

clrscr();

printf("Press a key(except q) to enter a process into critical section.");

printf(" \nPress q at any time to exit."); t1 = time(NULL) - 5;

while(key!='q')

{

while(!kbhit())

if(cs!=0)

{

t2 = time(NULL);

if(t2-t1 > run)

{

printf("Process%d ",pro-1);

printf(" exits critical section.\n");

cs=0;

}

}

key = getch();

if(key!='q')

{

if(cs!=0)

printf("Error: Another process is currently executing critical section Please wait till its execution is over.\n");

else

{

printf("Process %d ",pro);

printf(" entered critical section\n");

cs=1;

pro++;

t1 = time(NULL);

}

}

}

}

**Output:**