**PRACTICAL 12**

**OBJECTIVE:WRITE A PROGRAM TO CALCULATE SUM OF ‘N’ NUMBERS USING THREAD LIBRARY.**

**SOL:**

#include<pthread.h>

#include<stdio.h>

#include<stdlib.h>

int sum; //data shared among threads

void \*runner(void \*param); //the thread \*I int main(int argc,char \*argv[])

{

//thread calculates the sum of numbers from

//1 to argv[1](an integer)

pthread\_t tid; //thread identifier \*I pthread\_attr\_t attr; //set of thread attributes if(argc!=2)

{

fprintf(stderr,"usage:a.out<integervalue>\n");

return -1;

}

if(atoi(argv[1])<0)

{

fprintf(stderr,"%d must be >=0\n",atoi(argv[1]));

return -1;

}

pthread\_attr\_init(&attr); //get default attributes \*I pthread\_create(&tid,&attr,runner,argv[1]); pthread\_join(tid,NULL); //wait for thread to exit \*I printf("SUM=%d\n",sum);

return 0;

}

void \*runner(void \*param)

{

int i,upper=atoi(param);

sum=0;

for(i=1;i<=upper;i++)

sum+=i;

pthread\_exit=(0);

}

OUTPUT:

