QUES 12. Write a program to calculate sum of n numbers using thread library.

```
#include<pthread.h>

#include<stdio.h>

#include<stdlib.h>

int sum;

void *runner(void *param);

int main(int argc, char *argv[])
{

  pthread_t tid;

  pthread_attr_t attr;

  if(argc!=2)
  {

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

    return -1;
  }
  if(atoi(argv[1])<0)

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

    return -1;

  }
  pthread_attr_init(&attr);

  pthread_create(&tid, &attr, runner, argv[1]);

  pthread_join(tid, NULL);

  printf("SUM=%d\n", sum);

  return 0;
```

```
}
void *runner(void *param)

{
  int i, upper=atoi((char*)param);

  sum=0;

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

    sum+=i;

  pthread_exit(0);
}
```

OUTPUT: