**5A FACTORIAL OF A GIVEN NUMBER**

**5 b.** Solving **Tower of Hanoi** problem with **n** disks

**Description:**Given n disks and 3 towers, the program displays solution for tower of Hanoi problem. The disks on the source tower has to be moved to the destination tower by using temporary tower. Constraint is that while moving the disks no larger disk can be placed on the smaller disk. This problem can be solved by using recursion.

**#include<stdio.h>**

**void tower(int,char,char,char);**

**int main()**

**{**

**int n;**

**printf("enter no of disks:");**

**scanf("%d",&n);**

**if(n==0)**

**{**

**printf("no disk found\n");**

**return 0;**

**}**

**printf("moves involed in tower of hanio\n");**

**tower(n,'A','C','B');**

**return 0;**

**}**

**void tower(intn,charsource,chardest,char temp)**

**{**

**if(n==1)**

**{**

**printf("move %d disk from %c to %c\n",n,source,dest);**

**return;**

**}**

**tower(n-1,source,temp,dest);**

**printf("move %d disk from %c to %c\n",n,source,dest);**

**tower(n-1,temp,dest,source);**

**}**