**1. Write a Program to print the factorial of number (macro) using assembly language.**

**Code -**

**readnum macro num**

**mov ah,01h**

**int 21h**

**Sub al,'0'**

**mov bh,0ah**

**mul bh**

**mov num, al**

**mov ah,01h**

**int 21h**

**Sub al,'0'**

**add num,al**

**endm**

**printstring macro msg**

**mov ah,09h**

**mov dx,offset msg**

**int 21h**

**endm**

**data segment**

**cr equ 0dh**

**lf equ 0ah**

**msg1 db cr,lf,'Enter the 2 digit Number: $'**

**msg2 db cr,lf,'The Factorial of the number is: $'**

**num db ?**

**result db 20 dup('$')**

**data ends**

**code Segment**

**assume cs:code, ds:data**

**start:**

**mov ax,data**

**mov ds,ax**

**printstring msg1**

**readnum num \\num=04**

**mov ax,01 \\ ax=1**

**mov ch,00**

**mov cl,num \\cx=04**

**cmp cx,00**

**je skip**

**rpt:**

**mov dx,00**

**mul cx**

**loop rpt**

**skip:**

**mov si, offset result**

**call hex2asc**

**printstring msg2**

**printstring result**

**mov ax,4c00h**

**int 21h**

**hex2asc proc near**

**push ax**

**push bx**

**push cx**

**push dx**

**push si**

**mov cx,00h**

**mov bx,0ah**

**rpt1:**

**mov dx,00**

**div bx**

**add dl,'0' //ax:dx**

**push dx**

**inc cx**

**cmp ax,0ah**

**jge rpt1**

**add al,'0'**

**mov [si], al**

**rpt2:**

**pop ax**

**inc si**

**mov [si],al**

**loop rpt2**

**inc si**

**mov al,'$'**

**mov [si],al**

**pop si**

**pop dx**

**pop cx**

**pop bx**

**pop ax**

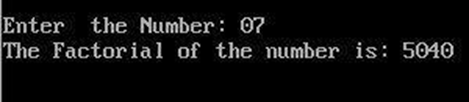
**ret**

**hex2asc endp**

**code ends**

**end start**

**Output -**

****