LAB - 11

```
;program :: Compute nCr using recursive
procedure. Assume 'n' and 'r' are non-negative
integers

.model small
.data
n db 05h
r db 00h
ncrval dw 01h dup(?)

.code

Start:
    mov ax,@data
    mov ds,ax
    mov cl,r      ;cl=02h -> value of r
    mov ch,n      ;ch=05h -> value of n
    xor ax,ax     ;clear the content of ax
                  ;mov Ax,00H

    call ncr
    mov [ncrval],ax
    mov ah,4ch
    int 21h

ncr proc near
    cmp ch,cl
    je equal      ;N==R ? set 1
    jc finish     ;n<r ? set zero
    cmp cl,01h    ;R==1 ? Set n
    jc next
```

```
cmp   cl,00h
je    equal
dec   ch   ;ch=06=n-1
Push  cx   ;ch=04 cl=02
call  ncr
pop   cx
dec   cl
call  ncr
ret
next: xor  bx,bx   ;clear bx
      mov  bl,ch   ;BL=5->value of r
      add  ax,bx   ;00+05=05
ret
equal: add ax,01h  ;ax=01h
finish: ret
ncr endp
end start
```