Lab 11

1. Develop an assembly language program to Compute nCr using recursive procedure. Assume that 'n' and 'r' are non-negative nos.

```
.model small

.data
N db 05H
R db 02H
NCRVAL dw 01H dup(?)

.code
start: MOV AX, @DATA
       MOV DS, AX
       MOV CL, R
       MOV CH, N
       XOR AX, AX
       CALL NCR
       MOV [NCRVAL], AX
       MOV AH, 4CH
       INT 21H

NCR PROC NEAR
       CMP CH, CL
       JE EQUAL
       JC FINISH
       CMP CL, 01H
       JE NEXT
       CMP CL, 00H
       JE EQUAL
       DEC CH
       PUSH CX
       CALL NCR
       POP CX
       DEC CL
       CALL NCR
       RET
```

```
NEXT : XOR BX, BX
       MOV BL, CH
       ADD AX, BX
RET
EQUAL : ADD AX, 01H
FINISH : RET
NCR ENDP
END START
```