**LAB TASK – 10**

1. (a) Write a program in assembly language to print the numbers from 0 to 9.

org 100h ; Set start address for COM file (code segment is 0x100)

mov cx, 10 ; Counter for loop (print 10 digits)

mov bx, 0 ; BX will hold the current number to print (starting from 0)

print\_loop:

mov al, bl ; Move current number in BX into AL

add al, '0' ; Convert to ASCII by adding '0'

mov ah, 0x0E ; BIOS interrupt for teletype output

int 10h ; Call interrupt to print AL

inc bl ; Increment BX (next number)

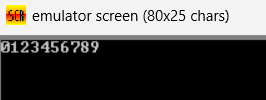
loop print\_loop ; Loop until CX reaches 0

; Exit program

mov ax, 4Ch ; DOS interrupt to exit (4Ch)

int 21h

OUTPUT:



(b) Write an assembly language program to print the characters from A to Z in reverse order.

org 100h ; Set start address for COM file

mov cx, 26 ; Set loop counter to 26 (for 26 letters)

mov al, 'Z' ; Start with the ASCII value of 'Z'

print\_loop:

mov ah, 0x0E ; BIOS teletype output function

int 10h ; Print the character in AL

dec al ; Move to the previous letter

loop print\_loop ; Repeat until CX reaches 0

; Exit program

mov ax, 4C00h ; DOS interrupt to exit (function 4Ch)

int 21h

OUTPUT:



2.(a) Write a program in assembly language to print the numbers from 0 to 9 in reverse order.

org 100h ; Set start address for COM file (code segment is 0x100)

mov cx, 10 ; Counter for loop (print 10 digits)

mov bx, '9' ; BX will hold the current number to print (starting from 0)

print\_loop:

mov al, bl ; Move current number in BX into AL

;add al, '0' ; Convert to ASCII by adding '0'

mov ah, 0x0E ; BIOS interrupt for teletype output

int 10h ; Call interrupt to print AL

dec bl ; Increment BX (next number)

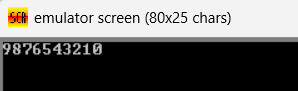
loop print\_loop ; Loop until CX reaches 0

; Exit program

mov ax, 4C00h ; DOS interrupt to exit (4Ch)

int 21h

OUTPUT:

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(b) Write an assembly language program to print the characters from A to Z.

org 100h ; Set start address for COM file

mov cx, 26 ; Set loop counter to 26 (for 26 letters)

mov al, 'A' ; Start with the ASCII value of 'Z'

print\_loop:

mov dl, al

mov ah, 02h

int 21h ; Print the character in AL

inc al ; Move to the previous letter

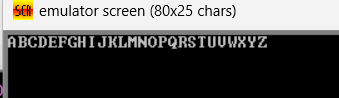
loop print\_loop ; Repeat until CX reaches 0

; Exit program

mov ax, 4Ch ; DOS interrupt to exit (function 4Ch)

int 21h

OUTPUT:



Github link:

<https://github.com/SRIVALLI2005/-ABM-MODULE->