

Computer Organization and Assembly Language Lab

BCSF21 Morning

- Proper commenting is the part of lab (Comments should explain the reason of each line)
 - Do not cheat, any cheating case results in zero marks.
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Task 1(5)

Write assembly code for each of the following decision structures

- 1- IF AI < 0
Then
 Put FFh in AH
Else
 Put 0 in AH
End-IF
- 2- If AX < BX
Then
 Put 0 in AX
Else
 If BX < CX
 Then Put 0 in BX
 Else
 Put 0 in CX
 End-IF
End-IF

Task 2(5)

Write a program to display a 10 X 10 solid box of asterisks.

Task 3 (5)

Write a program to

- 1- display a “?”
- 2- read 3 initials
- 3- display them in the middle of a 11X11 box of asterisks

Task 4

Write 8086 assembly language program a loop that searches for a specific value in an array of integers and returns its index. (4)

Task 5

1. Reverse a string using stack.(5)
2. Initialize a stack with random values and find the second-largest value in the stack.
(10)

Task 6 (6)

Suppose that Ax = 1234h, BX = 5678h, CX = 9ABCh, and SP = 100h. Give the contents of AX, BX, CX and SP after executing the following instructions also show working.

```
PUSH AX
PUSH BX
XCHG AX, CX
POP CX
PUSH AX
POP BX
```