

COAL
BS CS Fall 2022
Quiz 2

Time allowed: 20 min

Total marks: 25

Roll Number: _____

Name: _____

Q1: **[5+5+5]**
For the following instructions, Give the destination contents and the new settings of Carry, Overflow, Sign and Zero Flags. (Suppose that initially all flags are reset)

- a) ADD AX, BX
 where AX =7132 BX =7000

AX	carry	overflow	Sign	zero
E132	0	1	1	0

- b) SUB CX, DX
 where CX = 8BCD DX =71AB

CX	carry	overflow	sign	Zero
1A22	0	1	0	0

- c) MOV AX,DX
 where AX =3456 DX =ABCD

AX	carry	overflow	sign	Zero
ABCD	0	0	0	0

Q2: How many times the loop will be executed in the following code? **[3]**

```
aa:  Mov ch,FEh
      Mov dl,'A'
      Mov ah,02
      inc ch
      Jnz aa
```

2 times

Q3: How many times the loop will be executed in the following code? **[3]**

```
aa:  Mov ch,0
      Mov dl,'A'
      Mov ah,02
      Dec ch
      Jnz aa
```

256 times

Q4: Assume AX=6000h;BX=FFEEh; What will be in DX after the execution of the following instructions: **[4]**

```
      CMP AX, BX
      JLE AA
      MOV DX,40
      JMP EXIT
AA:   MOV DX,20
EXIT:
```

DX=40