

Course Code: EE-2003	Course Name: Computer Organization & Assembly Language
Instructor Name / Names: Ms. Atiya Jokhio	
Student ID:	

Time Allowed: 20 minutes.

Total Marks: 10

Instructions:

- Attempt all questions in the given space or use back side of paper [if needed].

Question:1 Suppose DX contains 0000h, AX contains 0005h, and BX contains FFEh. Show the final values in specified registers for Div instructions. **[4 points]**

i) DIV BX

ii) IDIV BX

Instruction	Decimal quotient	Decimal remainder	AX	DX
DIV BX	0	5	0000	0005
IDIV BX	-2	1	FFFE	0001

For DIV, the dividend is 5 and the divisor is FFEh = 65534; 5 divided by 65534 yields a quotient of 0 and a remainder of 5.

For IDIV, the dividend is 5 and the divisor is FFEh = -2; 5 divided by -2 gives a quotient of -2 and a remainder of 1.

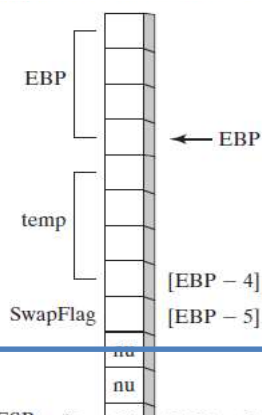
Question:2 What will be the contents of AX and DX after the following operation? **[2 Points]**

```
mov dx, 0
mov ax, 222h
mov cx, 100h
mul cx
```

Ax=2200h -> 8704 dec

Dx=0002 -> 2 dec

Question: 3 Design procedure in an assembly (Irvine 32 lib) named as "Quiz 3" for given stack space **[4 Points]**



```
push ebp
mov  ebp,esp
add  esp,0FFFFFFF8h      ; add -8 to ESP
mov  eax,[ebp-4]          ; temp
mov  bl,[ebp-5]           ; SwapFlag
leave
ret
```