CS/ ECE /EEE/ INSTR F241 Microprocessor Programming & Interfacing

Quiz-1 (Closed Book)

Date: 13/02/15   Max Marks   : 20
Day: Friday   Time :12.00 – 12.30PM

Answer all the questions.
Answer all parts of a question in the order given.

1. In programmer point of view which ISA is preferable and why?   1M

2. What are the default displacement registers for SS and ES.   1M

3. MOV [BX],AL   1M

    In the machine code of above instruction , D=---------- and W=-------------

4. What is done by the following instruction   1M

    STORAGE DW 100 DUP(?)

5. Identify the addressing mode used and calculate the Physical address of the operand in the given example.
        MOV DL, [BP+SI]
    Given that CS=0100, DS= 0200, SS= 0300, BP=1234 and SI=1111   2M

6. If AL = B5H, BL = 25H, AH = 03H, then after DIV BL instruction, contents of register AX= _____   2M

7. If **BL= 1010 1110** ,   2M

        a) **NOT BL** results in BL = ----------------------

        b) **NEG BL** results in BL = ----------------------

8. After an arithmetic operation, the contents of flag Register of 8086 is as shown below. What can you say about the flag status?   2M

0	0	0	0	1	1	1	0	0	0	0	1	0	1	0	1

9. Let the contents of AX= 4578H , BX= 1245H

    CMP AX,BX

    What are the flags affected by the above instruction? Indicate the flag values and contents of registers after the execution.   2M

10. Find the content of Instruction pointer after the execution of jump instruction mentioned in the below program. Justify your answer. (Assume that the program is stored at memory offset 3050H onwards).   2M

3050H	MOV AX,1234H
3053H	MOV BX, EFA3H
3056H	ADD AX, BX
3057H	JNC L1
3058 H	INC AX
3059H	INC AX
305AH	L1: INC BX
305BH	INC BX

11. Identify whether the following instructions are valid or not. If not valid, mention the reason.   (2X2=4M)
     (a)   MOV [AX],[BX]   (b) MOV DS, 2000H