HOME WORK FOR EE390 SECTION 1 AND 2

1. For the following program, assume CS=DS=SS=ES and "LABEL=CS:0015"
Execute the program and fill the appropriate **stack** segment locations the
registers BX, CX, DX and SP register.

```
Title "PUSH POP AND SUBROUTINE"
.MODEL          small
.STACK          32

.DATA
.CODE
        MOV    AX, @DATA
        MOV    DS, AX
        MOV    SP,0200H
        MOV    AX,0080H
        MOV    BX,7900H

        PUSH   AX
        PUSH   BX
        CALL   SUBROUT1
LABEL:POP       CX
        POP    DX
        MOV    AH,4CH
        INT    021H
    SUBROUT1  PROC   NEAR
              INC    AX
              MOV    CX,AX
              RET
    SUBROUT1  ENDP
END
```

Registers	Contents
BX	
CX	
DX	
SP	

Stack Address	Memory Content
SS:0200	
SS:01FE	
SS:01FC	
SS:01FA	
SS:01F8	
SS:01F6	
SS:01F4	
SS:01F2	
SS:01F0	

2. Execute the following program and find the REGISTER VALUES.

```
TITLE "XLAT"
.MODEL SMALL
.STACK 32H
.DATA
 VAR   DB "MISEIOHNTO_IPAOTTAS"
 VAR1  EQU  10H
.CODE
        MOV  AX,@DATA
        MOV  DS,AX
        XOR  AH,AH
        MOV  AL,VAR1
        LEA  BX,VAR
        XLAT
        CBW
        MOV  DX,AX
        MOV  AX,4C00H
        INT  21H
END
```

1. Write the value stored in DX register :_____

2. Can "LEA" instruction (line 12) be replaced with "OFFSET" instruction: _____

3. What type of operators are "EQU" & "DB":_____

4. What is the purpose of the last two lines before 'END' instruction?