CSE 2006

MICROPROCESSOR AND INTERFACING

Task – 1

L11+L12 | SJT516

FALL SEMESTER 2021-22

by

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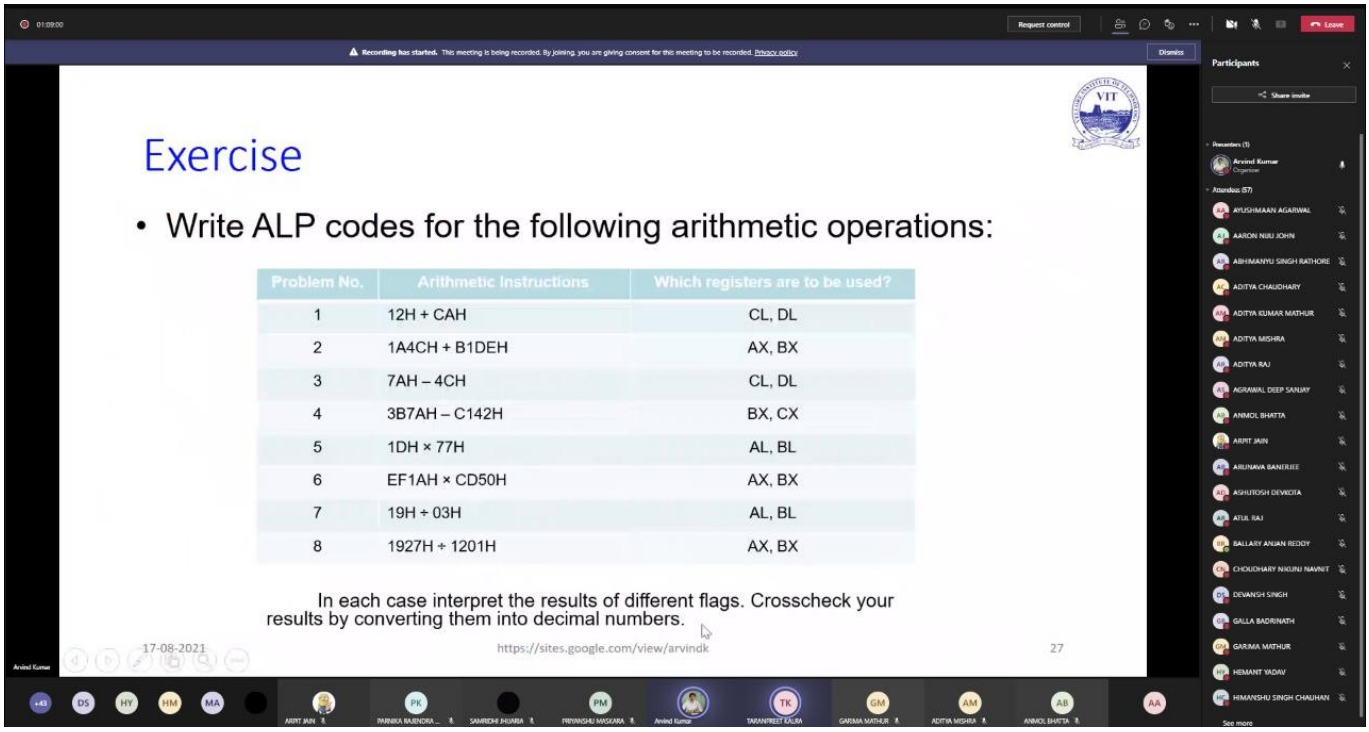
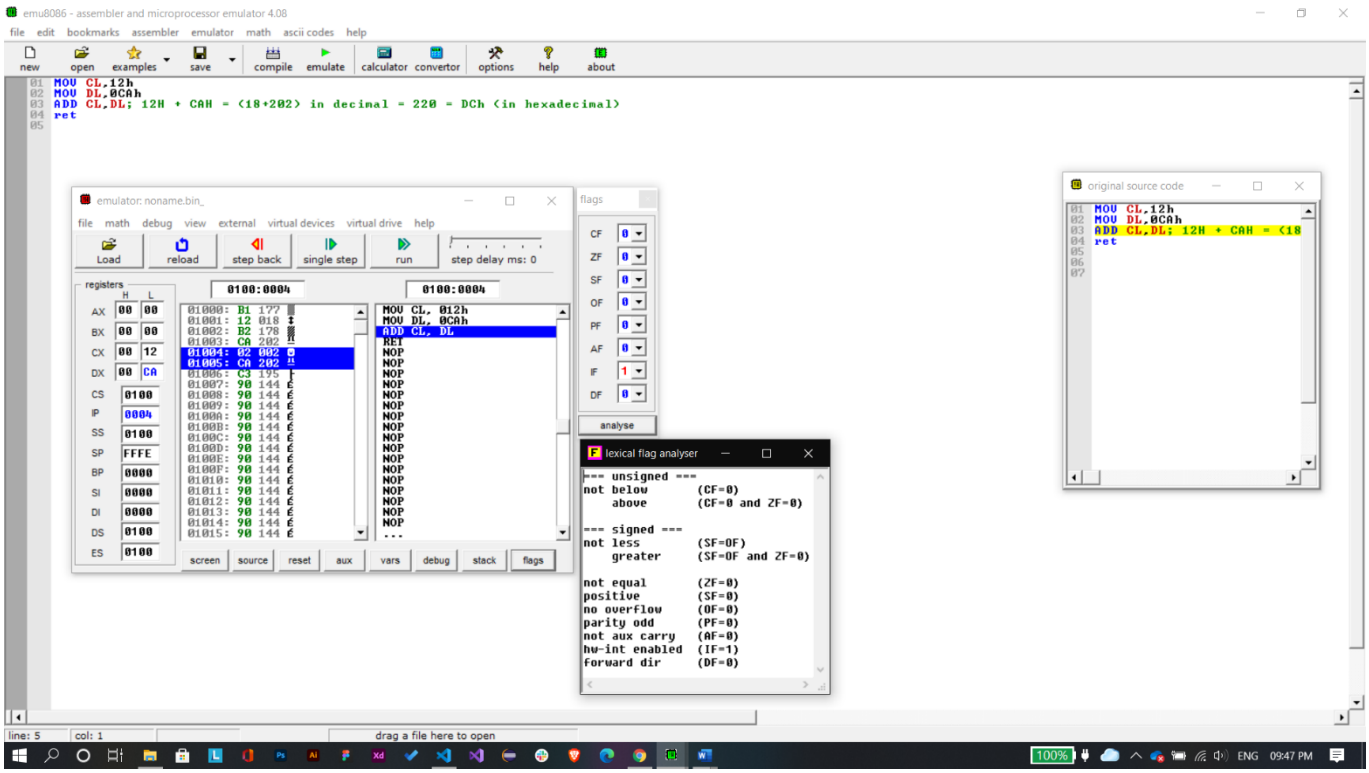
19BCE2105



1. **12H + CAH (using CL, DL registers)**

   Code:

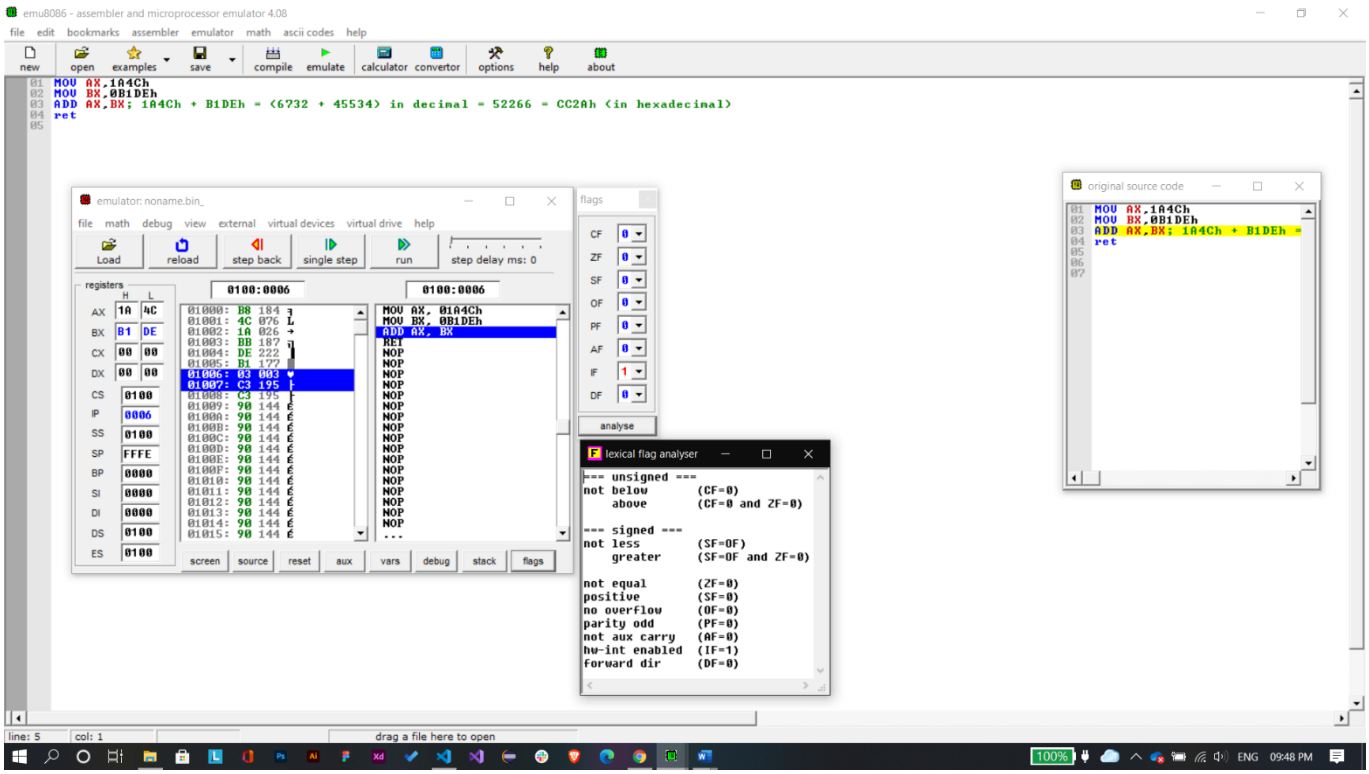
```
MOV CL,12h
MOV DL,0CAh
ADD CL,DL; 12H + CAH = (18+202) in decimal = 220 = DCh (in hexadecimal)
ret
```



2. **1A4CH + B1DEH (using AX, BX registers)**

Code:

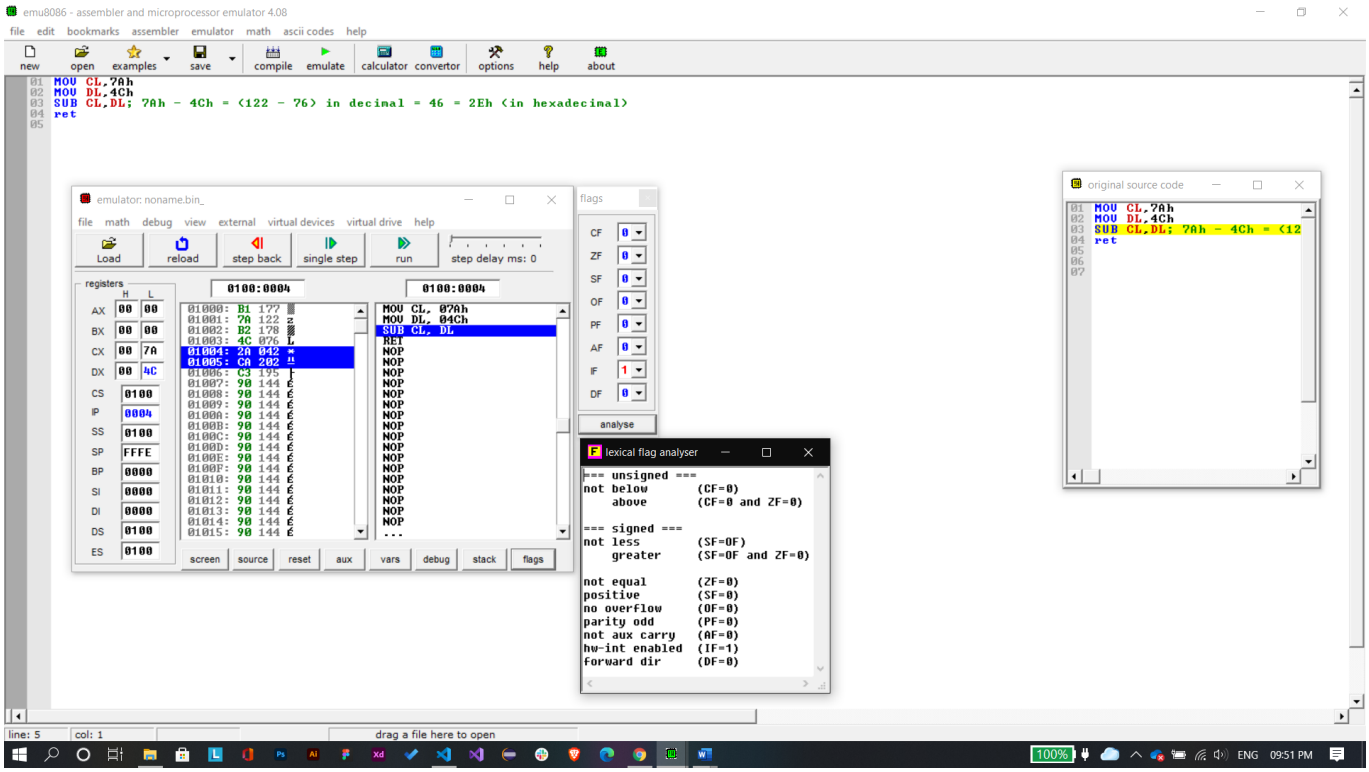
```
MOV AX,1A4Ch
MOV BX,0B1DEh
ADD AX,BX; 1A4Ch + B1DEh = (6732 + 45534) in decimal = 52266 = CC2Ah (in hexadecimal
)
ret
```



3. **7AH – 4CH (using CL, DL registers)**

Code:

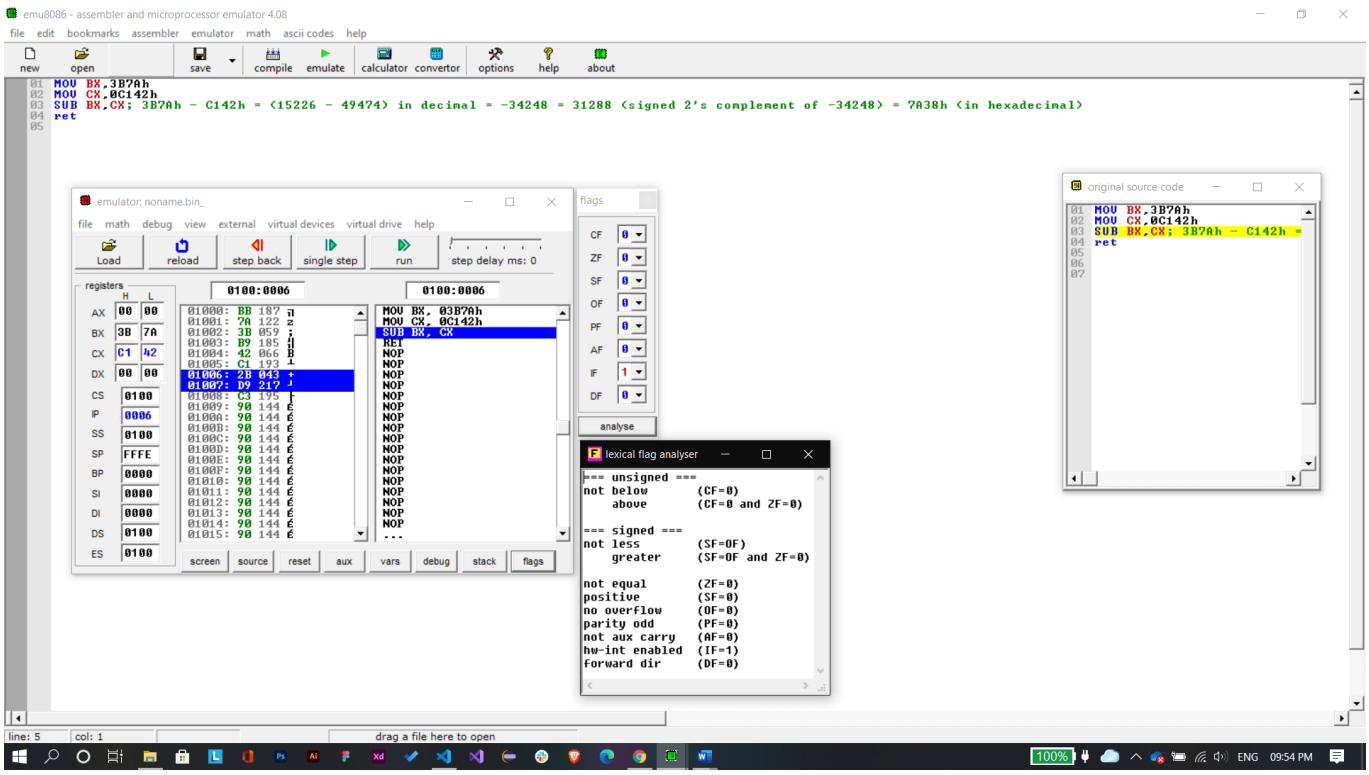
```
MOV CL,7Ah
MOV DL,4Ch
SUB CL,DL; 7Ah - 4Ch = (122 - 76) in decimal = 46 = 2Eh (in hexadecimal)
ret
```



4. **3B7AH + C142H (using BX, CX registers)**

Code:

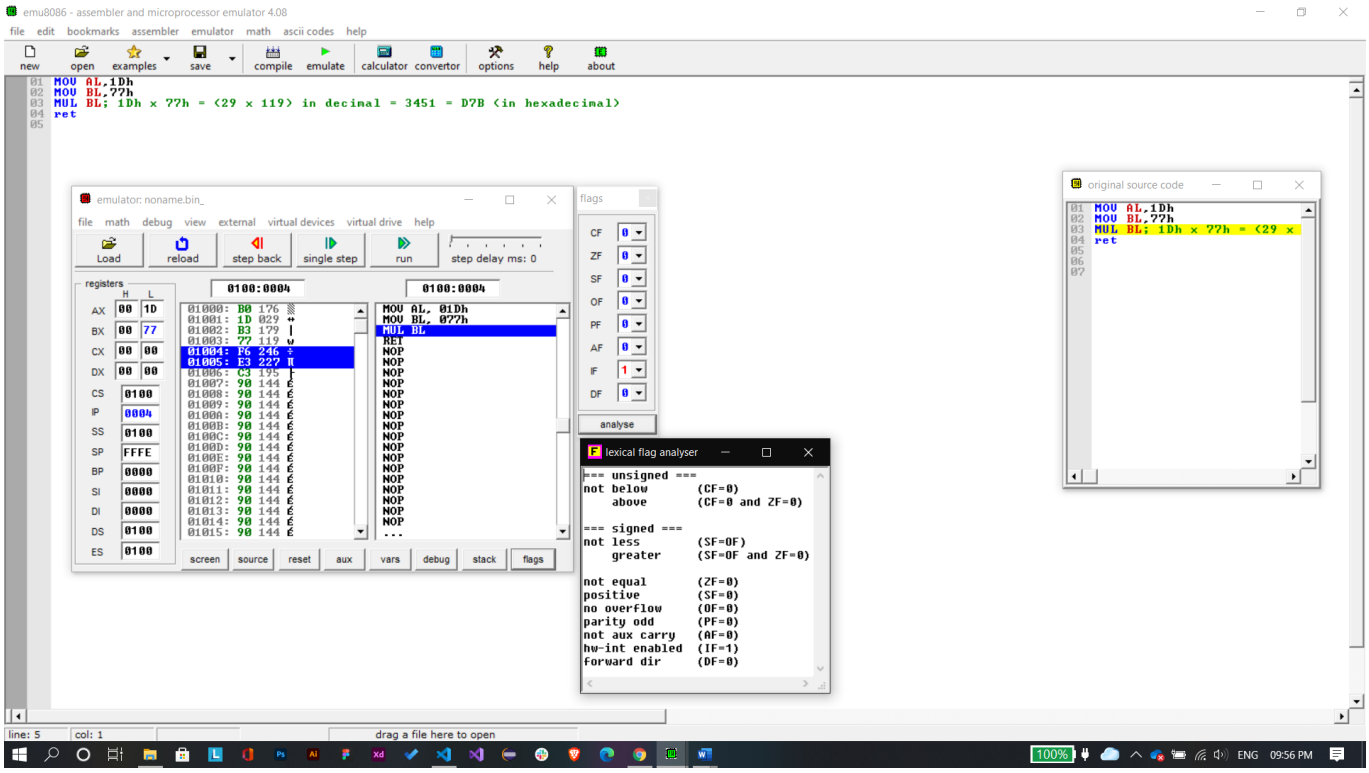
```
MOV BX,3B7Ah
MOV CX,0C142h
SUB BX,CX; 3B7Ah - C142h = (15226 - 49474) in decimal = 34248 = 31288 (signed 2's co
mplement of -34248) = 7A38h (in hexadecimal)
ret
```



5. 1DH × 77H (using AL, BL registers)

Code:

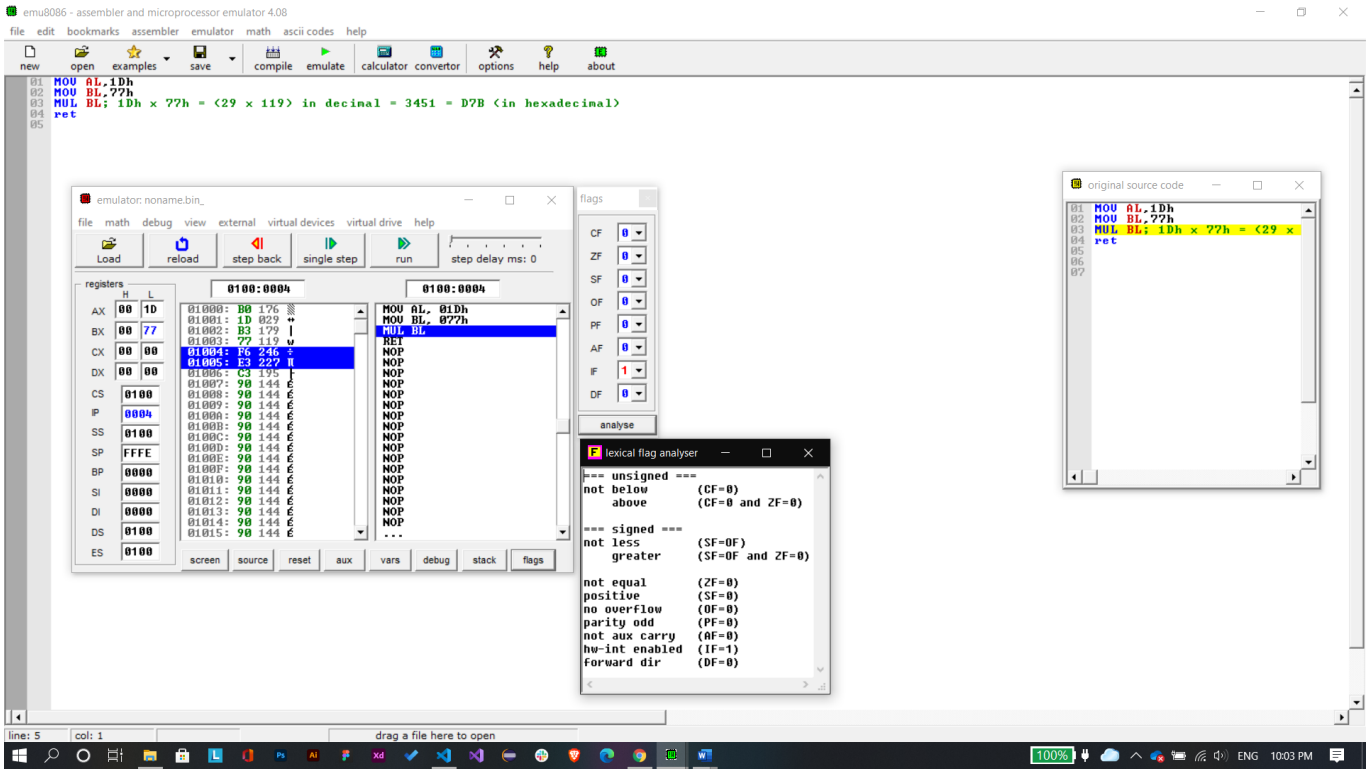
```
MOV AL,1Dh
MOV BL,77h
MUL BL; 1Dh x 77h = (29 x 119) in decimal = 3451 = D7B (in hexadecimal)
ret
```



6. **EF1AH × CD50H (using AX, BX registers)** `//product stored partly in DX and in AX`

Code:

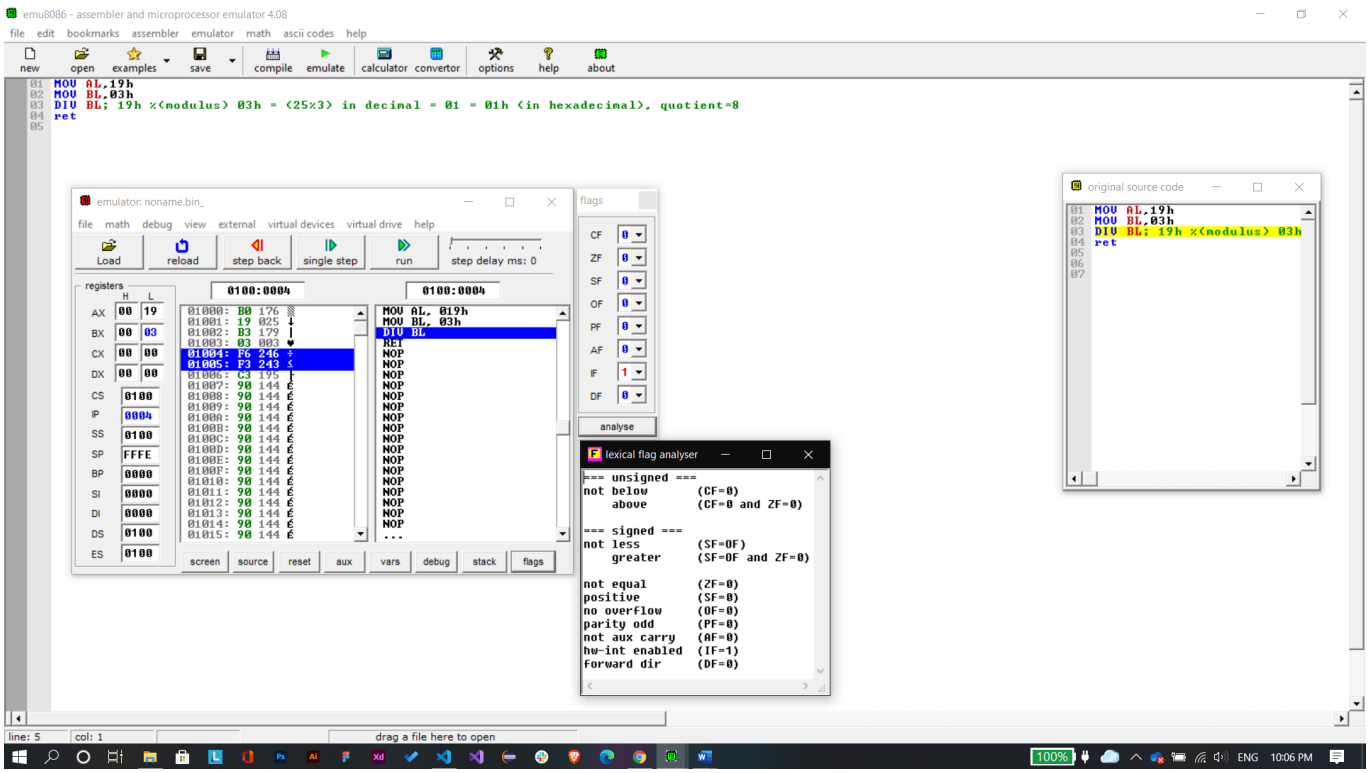
```
MOV AX,0EF1Ah
MOV BX,0CD50h
MUL BX; EF1Ah x CD50h = (61210 x 52560) in decimal = 3217197600 = BFC28A20h (in hexa decimal)
ret
```



7. **19H ÷ 03H (using AL, BL registers)** `//here quotient is stored in AH and remainder in BL`

Code:

```
MOV AL,19h
MOV BL,03h
DIV BL; 19h %(modulus) 03h = (25%3) in decimal = 01 = 01h (in hexadecimal), quotient =8
ret
```



8. **1927H ÷ 1201H (using AX, BX registers)** //here quotient is stored in AX; remainder in DX

```
MOV AX,1927h
MOV BX,1201h
DIV BX; 1927h %(modulus) 1201h = (6439%4609) in decimal = 1830 = 726h (in hexadecimal), quotient=1
ret
```