COE 205 Term 032
Computer Organization and Assembly Language Programming

Home Work # 1

Question 1:
Mention two advantages of programming in assembly language:
Mention two advantages of programming in a high level language:

Question 2:
Mention and classify all of the registers of the 8086 microprocessor. Mention the different functions of each register.

Question 3:
Convert the following numbers to binary, octal and hexadecimal: 250.375 and 4444.4

Question 4:
Perform the following operations:

       i. 10E h + 13F h
       ii. 1E h * 150 h
       iii. 1101 b * 1000 b

Question 5:
Represent the following numbers in signed magnitude, 1's complement and 2's complement representations: 119 and –55 using 8-bit and 16-bit representation

Question 6:
Perform the following operations using signed magnitude and 2's complement representations:

       0101 + 1111 ii. 0101 + 1111

Question 7:
What are the smallest and largest numbers that can be represented in an 8-bit format and 16-bit formats, considering:
       - unsigned integers
       - signed integers.

Question 8:
Give the binary ASCII code representation of the following statement: