EECE416 Microcomputer Fundamentals
Fall 2023
Dr. Charles Kim

SOLUTION
Assignment 1 (100 points)

A. Questions

(a). Convert the following hexadecimal values to binary
1. 0xEECE → 1110 1110 1100 1110
2. 0x416 → 0100 0001 0110

(b). Convert the following hexadecimal values to decimal
3. 0x2023 → 2*16^3 + 2* 16^1 + 3 = 8227
4. 0x0DAD → 13*16^2 + 10* 16^1 + 13 = 3501

(c). Find the 32-bit expression of hexadecimal value of the following decimal numbers. In other words, the answers must be expressed in 8 hex digits.
5. 200 → 0x 00 00 00 C8
6. 2,023 → 0x 00 00 07 E7
7. 10,000 → 0x 00 00 27 10
8. 4,049 → 0x 00 00 0F D1

(d). Find the 32-bit expression of hexadecimal value of the following decimal numbers. In other words, the answers must occupy 8 hex digits. Note that both are negative numbers.
9. - 18,870 (ans) 18870 → 0x 00 00 49 B6 → 16's Com → 0x FF FF B6 4A
10. – 416 (ans) 416 → 0x 00 00 01 A0 → 16's Comp → 0X FF FF FE 60

B. Score Distribution and Scoring Rubric: Total points = 100

	#1 - #10
10 pts	Correct with all calculation neatly displayed
7 pts	Incorrect (partially correct) with all calculations neatly displayed
5 pts	Correct without calculation
0 pts	Incorrect without calculation

C. Submission: Work on paper and submit your work by bringing it to the class or my office. Submission of a scanned copy of the manual work via email is also accepted. In the latter option, name the scanned copy as **416Assign1_LastName.xxx** (xxx being file type such as docx, doc, pdf, png, etc.)

D. Submission due: 5:00pm (F) September 15, 2023

E. Point Deduction on Late Submission (or **Maximum score by submission time**)

Submission Time/Date	Maximum score
By 5:00pm 9/15/2023	100
By 5:00pm 9/18/2023	70
By 5:00pm 9/19/2023	50
By 5:00pm 9/20/2023	30
After the above	0