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كلية الهندسة وتكنولوجيا المعلومات
قسم هندسة الحاسوب

Microprocessors (10636322)
Assignment #2: Assembly and inline-assembly programming

Question #1

Write an 8086 assembly program to do the following:

- Ask the user to enter 20 bytes (characters) and store them in memory.
- Then extract all digits and alphabet letters from the entered characters and store them in another memory address starting at 1000:2000H
- Write a procedure called sortProc to sort the extracted list in an ascending order
- Print the sorted list

Question #2

Write an inline assembly-C program to create a float to hex/binary calculator. Your program should convert the entered float value to 32-bit binary value. After the conversion process, your program should print the biased exponent and mantissa in binary and the final value in hex.

You must define, read and print the data in C, while the rest of the code must be written in assembly language.

For example: the user entered 13.0625

The program should print:	the value in HEX is	41510000H
	The mantissa is	10100010000000000000000
	The biased Exponent	10000010

Deadline: Tuesday 05/12/2023