

## **SIC/XE Instruction Set**

Due date: Monday, March 12<sup>th</sup>, 2018

**Write a sequence of instructions for SIC/XE machine that does the following:**

1. Set ALPHA equal to  $4 * \text{BETA} + 3 * \text{GAMMA}$ .
2. Convert a two-digit string to a number and stores the number in register A
3. Convert a string to UPPER case.
4. Implement the bubble sort to sort characters in a string.

### **Notes:**

1. Use the assembler and simulator to assemble and run your programs. Test your programs properly. Submit a report that contains your source code and sample runs. Also, state your assumptions clearly (if any).
2. You can put data in the memory using BYTE directive.
3. You are free to use I/O devices or just set inputs and outputs in memory.
4. You may need to use the ASCII code table.
5. Delivery policy: You have to submit the lab to the following email: **csed.submissions@gmail.com**, with source codes + the report attached, send your submission with subject **Name\_Id\_2ndYear**.