Assignment 11—LMC (Little Man Computer) assignment (a supplementary assignment for Assignment #5)

(**Due dates: by Friday, 5/1**)

Your name:	Grade:

Important notice on how to submit and grade this assignment:
- You do NOT have to write the question text. You need to **write the question number** for each question.

You need to refer to the handouts given in the class and the slides related to the LMC on course website for the following questions.

1. Read sections 6.1 and 6.2 and briefly describe how LMC works (trying to using CS technical terms, such CPU's registers/ALU/Control-unit, PC, Memory, I/O devices, …).

2. Read sections 6.3 and 6.4. Explain functionality of each of the following assembly language instructions (their corresponding machine language commands are in the parentheses) (how each operates in LMC):
- IN (901)
- LDA 30 (530)
- STO 45 (345)
- SUB 66 (266)
- BRP 15 (808)

3. Read section 6.5 and draw a flow chart (both fetch and execution portions—check the slides for what a flow chart looks like) that carefully describes the steps that LMC follows to execute LOAD instruction (suppose the instruction LDA 45 (523) is stored in the mail box 15).