Rules:

- The exam will start at 2:15pm. The zoom link will be opened at 1:45pm. You are encouraged to join before the exam starts to ask whatever questions you have. You risk missing the exam if you try to join the zoom meeting after 2:15pm.
- Your camera must be on in full view with real background during the whole exam. You cannot leave your position during the whole exam.
- You must be on mute during the whole exam. Send questions via chat. If you do not get an answer, use your best judgment.
- This is a closed book exam. You are not permitted to consult books, notes, calculators, and the Internet.

Structure, problem selection, and credit:

- There are four parts: one for the topic of Induction, one for the topic of Recursion, one for the topic of Modular Arithmetic, and one for the topic of Counting.
- Each one of the four parts has versions or parameters that depend on your ID. Make sure that you answer the questions that are associated with the digits of your ID.
- Each part is worth 25 credits for a total of 100 credits.
- You get only partial credit if you fail to justify correct answers. You get 20% of the credit if you do not answer a problem. You get zero credit for wrong answers.

Submission:

- You must use the answer sheets and write your answers only inside the given space. In total, there are four pages. Prepare identical copies, if you cannot print them. If you do not type, use a black pen or pencil to avoid poor quality.
- There will be four sessions of 20 minutes, one per each of the four topics. At the beginning of each session one of the problems will be presented. After 15 minutes you must submit a scanned version or a photo of your answer to this problem. The next sessions starts about 5 minutes after the previous one ends.
- Each of the four submissions should be an attachment sent to the course email. Do not forget to write your name and Id on each page you submit.

Honor code: Students are expected to do this exam by themselves without any external help from other people, the Internet, books, notes, and calculators. Cheaters will be punished severely. At minimum, they will fail the exam, but they may fail the whole class. In addition, students who cheat risk disciplinary measures by Brooklyn College and CUNY.
1 Part I: Induction (25 credits)
2 Part II: Recursion (25 credits)
3 Part III: Modular Arithmetic (25 credits)
4 Part IV: Counting (25 credits)