READ AND FOLLOW THESE INSTRUCTIONS

This booklet contains 13 pages. Check to see if any are missing. Print on the top all the requested information, and sign your name. Put your name on the top of every page, in case the pages become separated. Do your work in the blank spaces and back of pages of this booklet.

This is a 3-hour examination consisting of 17 questions divided into two parts, worth a total of 200 points. Part I consists of 11 machine-graded multiple-choice questions worth 10 points each (total of 110 points). Part II consists of 6 hand-graded questions worth 15 points each (total of 90 points).

You may use a scientific calculator. You may not use a graphing calculator, a tablet, a computer or a phone. You may not use books or notes. SHOW ALL YOUR WORK! In part II, unsupported answers will receive little credit.

Machine graded part: You will receive one answer sheet to record your answers for the machine-graded portion of the exam. You MUST use a soft pencil (No. 1 or No. 2) to answer this part. Do not fold or tear the answer sheet, and carefully enter all the requested information according to the instructions you received. Do not make any stray marks on the answer sheet. When you have decided on a correct answer to a given question, circle the answer in this booklet and blacken completely the corresponding circle in the answer sheet. If you erase something, do so thoroughly. Each question has one and only one correct answer. If you give two different answers, the question will be marked wrong. There is no penalty for guessing, but if you don’t answer a question, skip the corresponding line in the answer sheet. Go on to the next question.

Either the student or the School of Mathematics may for any reason request a regrade of the machine graded part. All regrades will be based on responses in the test booklet, and not on the machine graded response sheet. Any problem for which the answer is not indicated in the test booklet, or which has no relevant accompanying calculations will be marked wrong on the regrade. Therefore, work and answers must be clearly shown on the test booklet.

After you finish both parts of the exam: Place the answer sheet between two pages of this booklet (make a sandwich), with the side marked “General Purpose Answer Sheet” facing DOWN. Have your ID card in your hand when handing in your exam.


Multiple Choice Part:

Total