Time: 120 minutes

University of Calgary

Faculty of Science Midterm test

PHYSICS 259 ALL LECTURE SECTIONS

February 14, 2017, 7:00-9:00 pm

This is a closed-book exam worth a total of 32 points. Please answer all questions.

ONLY THE FOLLOWING ITEMS ARE ALLOWED ON YOUR DESK DURING THE EXAM:

- 1. THIS MULTIPLE-CHOICE QUESTION BOOKLET, which includes the multiple-choice exam questions and the formula sheet (last page). THIS BOOKLET WILL NOT BE HANDED IN. Make sure this booklet contains 14 pages (including formula sheet). If you are missing any pages, get a new booklet from the exam supervisor.
- 2. A BUBBLE SHEET used to answer multiple-choice questions. IT WILL BE HANDED IN.

IMPORTANT: START by entering your ID NUMBER, NAME and COURSE ID on the bubble sheet. Using a pen or a pencil, black out the corresponding numbers below your ID and name. DO THIS NOW. Then wait for the Exam Supervisor to signal when to start the test.

All answers to the multiple-choice questions must be entered by blacking out the appropriate character (one of a, b, c, d, e) beside the question number on the bubble sheet. Make sure you darken the entire interior of the circle that contains the character.

- **3.** A CALCULATOR, which can be anything that does NOT connect to wifi and does NOT communicate with other devices. ACCEPTABLE calculators include: programmable and graphing calculators, Schulich School of Engineering calculators, scientific calculators, etc. UNACCEPTABLE calculators include: cell phones, tablets, laptops, etc.
- **4. A PEN OR PENCIL**, used to black out your answers on the bubble sheet. If you are using a PEN, make sure it is BLACK or BLUE in order to ensure the scanner reads your answers properly. PENCILS can also be used, but make sure you press firmly when answering so the scanner reads your answer properly.
- 5. YOUR STUDENT ID CARD, used to check your identity during exam sign-in.

If you are missing anything from the above items, raise your hand and ask an exam supervisor to supply what is missing. If you are missing an item that should have been brought by you (e.g., calculator, pen/pencil) there is a limited supply of extras and are on a first come, first served basis.