

University of Calgary
Faculty of Science Midterm test
PHYSICS 259 ALL LECTURE SECTIONS

April 20, 2017, 3:30-6:30 pm

Time: 180 minutes

This is a closed-book exam worth a total of 45 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 19 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: **Schulich School of Engineering approved calculators.** 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.

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.

Please note that you cannot leave the room during the first and last 30 minutes of the exam. Students remaining during the last 30 minutes must remain seated for the duration of the exam until permitted to leave by the instructor.