

**PHYSICS 222** **Fall 2009**  
**EXAM 1: October 1, 2009 8:00pm—10:00pm**

Name (printed): \_\_\_\_\_  
Recitation Instructor: \_\_\_\_\_ Section # \_\_\_\_\_

**INSTRUCTIONS:**

This exam contains **25 multiple-choice questions, plus two extra-credit questions, each worth 3 points**. Choose one answer only for each question. Choose the best answer to each question. Answer all questions.

**Allowed material:** Before turning over this page, put away all materials except for pens, pencils, erasers, rulers and your calculator. There is a formula sheet attached at the end of the exam. Other copies of the formula sheet are not allowed.

**Calculator:** In general, any calculator, including calculators that perform graphing, is permitted. Electronic devices that can store large amounts of text, data or equations (like laptops, palmtops, pocket computers, PDA or e-book readers) are NOT permitted. If you are unsure whether or not your calculator is allowed for the exam, ask your TA.

**How to fill in the bubble sheet:**

Use a number 2 pencil. Do NOT use ink. If you did not bring a pencil, ask for one.

Write and fill in the bubbles corresponding to:

- Your last name, middle initial, and first name.
- **★ ★ Your ID number (the middle 9 digits on your ISU card) ★ ★**
- Special codes K to L are your recitation section. (Honors sections: H1 → 10; H2 → 23). Always use two digits (e.g. 01, 09, 11, 13)

Please turn over your bubble sheet when you are not writing on it.

If you need to change any entry, you must completely erase your previous entry. Also, **circle your answers on this exam**. Before handing in your exam, be sure that your answers on your bubble sheet are what you intend them to be. You may also copy down your answers on a piece of paper to take with you and compare with the posted answers. You may use the table at the end of the exam for this.

**When you are finished** with the exam, place all exam materials, including the bubble sheet, and the exam itself, in your folder and return the folder to your recitation instructor.

**No cell phone calls allowed.** Either turn off your cell phone or leave it at home. Anyone answering a cell phone must hand in their work; their exam is over.

***Best of luck, Paul Canfield***