

Phys2020: Exam 1 (Sep 27, '12) 7:30 – 9:15 PM

For grader's use only

Your Name (please print neatly!) _____

I

Student ID # _____

II

TA's name (**Circle one!!**)

III

Jeremy (Jer) Brown Oscar Henriksson Devin Rourke

Day your lab meets (**Circle one!!**) Tue Wed Thu Fri

Time your lab starts (**Circle one!!**) 10 12 2

Please follow these instructions before you start the exam!

- Fill in the blank lines above, and *circle* your TA, and the day and time of your lab.
- Write in *and bubble in* your name *and* your ID # on the bubble sheet.
- Write *and bubble in* the exam number (**0001**) in the space at the top left of your bubble sheet.

Double check all the above! Then, please wait until a TA announces you may begin.

There are (TBD, about **12-15**) **multiple choice questions** and (TBD, roughly **2 -3 multi-part long answer questions** (on 2 pages!). **Multiple choice questions:** Please BUBBLE IN your answer on the bubble sheet. (Answers circled on this sheet will NOT be used for grading purposes!! The bubble sheet *always* takes precedence over anything written on your exam.) Use a #2 pencil. Erase mistakes carefully. If you can't thoroughly erase, ask for a fresh bubble sheet.

At the end, *check* that you have bubbled in *one* answer only, for all 12 questions. Multiple choice problems are 6 pts each (72 pts total).

Long answer questions: Fill them in **on this exam** (not the bubble sheet). Please write neatly! Long answer problem parts are worth 33 pts total.

Exam total is 105 pts.

Useful constants: $k = 9 \times 10^9 \text{ Nm}^2/\text{C}^2$, $e = 1.6 \times 10^{-19} \text{ C}$, use $g = 10 \text{ m/s}^2$ for this exam.

Units: $F = ma$, Units of [force] = [N] = [kg*m/s²], Work = $\vec{F} \cdot \vec{d}$, Units of [energy] = [J] = [N*m]

(Note: Exam is double sided, don't miss any questions.)

PLEASE turn in your exam in the **proper pile** up front! Thanks!