

PHYS 111

NOTES FOR THE FIRST HOUR EXAM

The first hour exam will be held in the usual classroom on Tuesday, 14 October. The exam will run for 60 minutes. I will pass out exams at 11 : 30 and students will have the full 60 minutes after everyone has their copy of the exam and we have gone over the test.

As noted in the syllabus, all electronic devices, including, but not limited to, calculators and cell phones must be stored out of sight. Any electronic devices that are out during the exam will cause the student to receive a zero on the exam. I will remind the class of this prior to the exam.

I will provide a list of equations and other useful information. You will not need to memorize any equations. However, you will need to know the meaning of each symbol in the equation and under what conditions the equations apply. If you think this sheet is missing any equations you want, please ask me during the exam and I will provide that information (as long as you are not asking for the answers to a question).

The exam will cover all material done in class and assigned for reading from the beginning of the semester. All questions must include complete and clear work showing the logic of your reasoning and your solutions. Responses which consist only of an answer without justification will receive little to no credit, even if the answer is correct.

The exam may include a variety of types of questions, including drawing and interpreting graphs, deriving equations, conceptual questions (as found in the text), or using equations to solve problems (as you have done frequently on homework assignments). As noted above, calculators will not be allowed. If I include any questions that require a numerical solution, either a) the numbers to be used will be simple integers so that no calculator will be needed, or b) I will ask you to set up the equations which when solved will yield the answer. For instance, if I asked a question similar to problem 6 a on homework 4, you would use the equations to derive an expression for $y(t)$. You would then write out the appropriate quadratic equation :

$$4.9 t^2 - 19.3 t - 100 = 0$$

and your final step would be :

$$t = \frac{19.3 \pm \sqrt{19.3^2 - 4(4.9)(-100)}}{2 \cdot 4.9}$$

This would be the final step in the solution; there will be no need to try to compute a numerical result.

To prepare for the exam, I recommend trying as many of the conceptual questions and problem in Chapters 1 - 5 as possible. I believe the following will be especially helpful in preparing for the exam, but the list below does not suggest that the exam questions will be drawn solely from this list :

Chapter 2 : Conceptual Questions (CQ) : 4, 5, 8, 14, 15, 18; Problems : 5, 12, 20, 30, 33, 41, 45, 53

Chapter 3 : CQ : 6, 7, 10, 11, 14; Problems : 3, 12, 18, 38, 40, 41, 61

Chapter 4 : CQ : 1, 2, 9, 17; Problems : 42, 47, passage problems 58 - 61

Chapter 5 : CQ : 1, 7, 9, 16; Problems : 3, 9, 15, 29, 42, 48, 68