## PHY 140Y – FOUNDATIONS OF PHYSICS 1999-2000 Problem Set #3

**HANDED OUT:** Friday, November 5, 1999 (in class).

**DUE:** 1:00 PM, Thursday, November 18, 1999 (in class).

Late penalty = 5 marks/day (which also applies to weekend days!) until 1:00 PM, Monday, November 22, after which it will not be accepted (as solutions

will then be available in tutorials and on the WWW).

**NOTES:** Answer all questions. Total marks = 100.

50% will be awarded for making a reasonable attempt at all questions. 50% will be awarded for the answers to a selected subset of the questions. Marks will given for workings and units, as well as for final answers.

## **QUESTIONS:**

(from Physics with Modern Physics, Third Edition, by Wolfson and Pasachoff)

- 1. Chapter 7, Problems 29 and 30, Page 183
- 2. Chapter 7, Problem 86, Page 186
- 3. Chapter 8, Problems 20 and 50, Pages 206 and 209
- 4. Chapter 8, Problem 76, Page 211. Also sketch the potential energy curve.
- 5. Chapter 8, Problem 84, Page 212
- 6. Chapter 15, Problem 46, Page 388
- 7. Chapter 15, Problem 64, Page 389
- 8. Chapter 15, Problem 66, Page 389. Also sketch the potential energy curve.
- 9. Chapter 15, Problem 70, Page 390
- 10. Chapter 15, Problem 72, Page 390