

You must use pencil to complete the exam.

**For full credit, you must:**


**use free body diagrams where appropriate,** 

**express your results with the proper units and to the appropriate number of significant digits, and**


**present a clear and accurate solution procedure.**

Students are expected to abide by the University of Alabama Academic Honor Code (reproduced below from the Undergraduate Catalog).

### **Academic Honor Code**

All students in attendance at The University of Alabama are expected to be honorable and to observe standards of conduct appropriate to a community of scholars. The University of Alabama expects from its students a higher standard of conduct than the minimum required to avoid discipline. At the beginning of each semester and on tests and projects at the discretion of the professor, each student will be expected to sign an Academic Honor Pledge. The pledge reads as follows: 

I promise or affirm that I will not at any time be involved with cheating, plagiarism, fabrication, or misrepresentation while enrolled as a student at The University of Alabama. I have read the Academic Honor Code, which explains disciplinary procedures that will result from the aforementioned. I understand that violation of this code will result in penalties as severe as indefinite suspension from the University.

**NOTE: Write on the front side of each page. Work on the back of any page will not be graded. Additional paper will be provided upon request.** 

**IMPORTANT: After the exam is returned, any additional marks must be in ink. If the exam is brought back to the instructor after it is returned, any additional marks made since it was returned must be immediately disclosed to the instructor by the student.**

Name: \_\_\_\_\_  
(SIGN/PRINT)

**For full credit, you must:**

**use free body diagrams where appropriate,**

**express your results with the proper units and to the appropriate number of significant digits, and**

**present a clear and accurate solution procedure.**

**Grades will not be assigned until 3-5 days after the examination date. The instructor will not be available for student meetings until after the semester grades have been assigned.** 

**Semester or final examination grades will not be given over the telephone or by email from the instructor. Students are encouraged to use the University web-based grade reporting service.**

Students are expected to abide by the University of Alabama Academic Honor Code (reproduced below from the Undergraduate Catalog).

### **Academic Honor Code**

All students in attendance at The University of Alabama are expected to be honorable and to observe standards of conduct appropriate to a community of scholars. The University of Alabama expects from its students a higher standard of conduct than the minimum required to avoid discipline. At the beginning of each semester and on tests and projects at the discretion of the professor, each student will be expected to sign an Academic Honor Pledge. The pledge reads as follows:

I promise or affirm that I will not at any time be involved with cheating, plagiarism, fabrication, or misrepresentation while enrolled as a student at The University of Alabama. I have read the Academic Honor Code, which explains disciplinary procedures that will result from the aforementioned. I understand that violation of this code will result in penalties as severe as indefinite suspension from the University.

**Instructions:** Work **all five** of the problems.

**NOTE:** Write on the front side of each page. Work on the back of any page will not be graded. Additional paper will be provided upon request.

#1 \_\_\_\_\_ #4 \_\_\_\_\_

Name: \_\_\_\_\_  
(SIGN/PRINT)

#2 \_\_\_\_\_ #5 \_\_\_\_\_

#3 \_\_\_\_\_ total \_\_\_\_\_