

Chemistry 1501, Dr. Hunter

Fall 2007

Exam # 1 (Group Part)

Name: _____, _____ Signature: _____

Name: _____, _____ Signature: _____

Name: _____, _____ Signature: _____

Name: _____, _____ Signature: _____

Name: _____, _____ Signature: _____

Last name**First name**

The group portion of this exam has this title page plus one page of questions. Please make sure you have all pages. Place the names (last name first) and signatures of each group member above. *Initial each page of the exam in the top right hand corner* using the initials of the all group members so that if your exam pages get separated I can match them to your group.

To obtain maximum credit for each question, show your work in detail. Partial credit for questions will not be assigned if no work is shown. **Indeed, no credit will be granted if complete work is not shown even for correct answers.** Feel free to use pictures/diagrams to illustrate your text answers and/or to use short text explanations to explain your drawings if your pictures are ambiguous. If you have to make assumptions, etc., to complete any answers, write me a short note stating and/or explaining your assumptions and testing them to the degree possible.

You have 35 minutes for the group part of this exam. The twenty points for the group part of this exam correspond to 10% of the 200 points for this course. Together, the group and individual parts of this exam are worth $\frac{1}{4}$ of the total course grade.

Grade /20 (group grade)

1 (20 points total). A axe had a steel head that weights 5 Kg and a wooden handle that weights 0.6 Kg. It was left out in the sun and in doing so heated up from 22° to 42°. How much heat did it absorb? [Note: Liquid water has a Specific Heat Capacity of 4.184 J/g°; Iron has a Specific Heat Capacity of 0.45 J/g°; and Carbon has a Specific Heat Capacity of 0.71 J/g°.]