

## AP Chem

### Reading questions – Chapter 2

#### Section 1

1. Compare extensive and intensive properties.
2. Why are intensive properties important to Chemistry,
3. Define phase
4. What general means of separation can be used to separate heterogeneous matter into homogeneous.
5. Briefly describe distillation and chromatography.
6. What is density?
7. How does temperature effect density?
8. At what temperature is ice most dense? Why is ice less dense than liquid water?

#### Section 2 (no questions)

#### Section 3

1. Compare kinetic and potential energy.
2. Briefly explain the transfers of energy when a book is dropped.
3. Define thermal energy.
4. What energy factor effects the strength of a chemical bond?
5. Why is the formation of water from hydrogen and oxygen gasses exothermic?
6. What are the units of a joule?
7. What is heat?
8. What is work?
9. What is temperature?
10. Compare energy and temperature.
11. What is specific heat and its common units?
12. Notice the example problem that  $\Delta t$  is the same in K and degrees Celsius.

#### Section 4

1. List the 7 base SI units and their abbreviation.
2. Make a list of the SI prefixes, their abbreviations, and multiplier

## Section 5

1. What is parallax error?
2. Compare random and systematic error.
3. Compare accuracy and precision.
4. Briefly define mean, range, and mode. Can you find an error/type in this section?

## Section 6

1. Write a set of rules for counting the number of significant figures in a given measurement. (You can use your knowledge from honors)
2. Why do we round answers to calculations in most Chemistry problems?