

Blitz, Units 18-23, Form M-R

Name _____ Period _____

This is a Take Home Exam. You may use your Notes, PowerPoint, or Text on this exam but NO help from human beings!

You MUST HAND WRITE THIS EXAM!! NO TYPED PAPERS WILL BE ACCEPTED!

EXPLAIN IN COMPLETE SENTENCES AND GIVE EXAMPLES:

1. Explain TWO principles that enable us to boil water in a paper cup.
2. Using $PV = nRT$, find the temperature in $^{\circ}\text{K}$ when 5.25 moles of Cl_2 are at a pressure of 134 KPa and the volume is 254 L. $R = 8.31 \text{ L}\cdot\text{KPa}/\text{mol}\cdot^{\circ}\text{K}$
3. Discuss the collision theory of reactions, and explain why a 10°C increase in temperature doubles the rate of a reaction.
4. Discuss the entropy of dissolving a solid in water.
5. Correct 63.8 liters of CO_2 gas from 42.0°C and a pressure of 620 mm pressure to STP (0°C and 760 mm). (Watch out for temperature units!)
6. Write the net ionic equation for the DISSOLVING of $\text{Cd}_3(\text{PO}_4)_2$ in water.
7. Discuss how the ammonia fountain works in terms of the entropy of gases dissolving in liquids.
8. Balance the equation for the burning of C_3H_8 and write the big K for the reaction.
9. Describe the differences between solutions, suspensions, and colloids. Include the tyndall effect.
10. Define: Solute, solvent, solution, saturated, unsaturated, supersaturated, and precipitation.

When finished, please STAPLE this exam onto your papers and turn in on due date.