

Name: _____

Quiz #6
CHEM 1411 — Fall 2009

1. How many grams of Na_2SO_4 (MM 142.04 g/mol) are in 125 mL of a solution that has a concentration of 0.250 M? (30 pts)

- _____ (a) 0.284 g
(b) 0.220 g
(c) 4.44 g
(d) 3.85 g
(e) 1.16 g

2. Classify the following compounds as **strong electrolytes**, **weak electrolytes**, or **nonelectrolytes**. (20 pts)

- a. MgBr_2 _____ c. HCl _____
b. $\text{C}_2\text{H}_6\text{O}$ _____ d. $\text{HC}_2\text{H}_3\text{O}_2$ _____

3. Complete and balance the following reactions. If no reaction occurs, write "NR." (30 pts)

- a. ___ $\text{KCl}(\text{aq})$ + ___ $\text{CaS}(\text{aq}) \rightarrow$
b. ___ $\text{Ca}(\text{NO}_3)_2(\text{aq})$ + ___ $\text{K}_2\text{CO}_3(\text{aq}) \rightarrow$
c. ___ $\text{Na}_3\text{PO}_4(\text{aq})$ + ___ $\text{CaCl}_2(\text{aq}) \rightarrow$

4. For ONE of the reactions in question 3 that actually takes place, write the ionic and net ionic equations for the reaction. (Phase labels may be omitted in the ionic equation, but they must be included in the net ionic equation.) (20 pts)