

Name: _____

Quiz #6
CHEM 1411 — Fall 2009

1. How many mL of 0.100 M Na_2SO_4 (MM 142.04 g/mol) are required to have a mass of 2.50 g of Na_2SO_4 ? (30 pts)
- _____ (a) 250 mL
(b) 176 mL
(c) 115 mL
(d) 89.6 mL
(e) 23.7 mL
2. Classify the following compounds as **strong electrolytes**, **weak electrolytes**, or **nonelectrolytes**. (20 pts)
- a. $\text{C}_2\text{H}_6\text{O}$ _____ c. CaCl_2 _____
b. HF _____ d. HBr _____
3. Complete and balance the following reactions. If no reaction occurs, write "NR." (30 pts)
- a. ___ $\text{KNO}_3(\text{aq})$ + ___ $\text{CaSO}_4(\text{aq}) \rightarrow$
- b. ___ $\text{CaCl}_2(\text{aq})$ + ___ $\text{K}_2\text{CO}_3(\text{aq}) \rightarrow$
- c. ___ $\text{AlCl}_3(\text{aq})$ + ___ $\text{Na}_3\text{PO}_4(\text{aq}) \rightarrow$
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)