

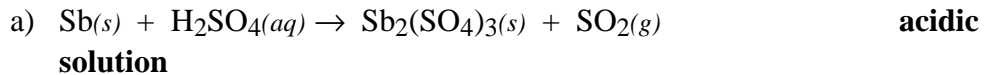
Sample Exam IV Questions

- (6) 5. Give the name or draw the Lewis structure for each of the following compounds.

3-ethyl-1-pentyne	trans-3, 5-dimethyl-2-hexene	$ \begin{array}{ccccccc} & & & & & & \text{CH}_3 \\ & & & & & & \\ \text{H}_3\text{C}-\text{CH} & - & \text{CH}_2 & - & \text{CH}_2 & - & \text{CH}- \\ & & & & & & \\ & \text{CH}_2\text{CH}_3 & & & & & \end{array} $
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- (14) 6. Draw ALL of the structural isomers for $\text{C}_4\text{H}_7\text{Cl}$. Name at least four of these isomers.

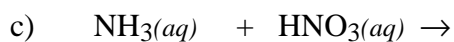
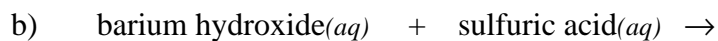
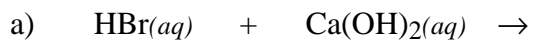
(10) 5. Balance the following oxidation-reduction reaction using the half-reaction method.



identify the oxidizing agent _____

identify the reducing agent _____

(12) 1. Write the chemical formula(s) of the product(s) and balance the following reactions. Identify all products phases as either (g)as, (l)iquid, (s)olid or (aq)ueous. Soluble ionic compounds should be written in the form of their component ions.



(6) 2. Write the ionic and net ionic chemical equations for 1a) and 1b).

1a)

Ionic equation:

Net Ionic equation:

1c)

Ionic equation:

Net Ionic equation:

(36) 5. Calculate the pH for each of the following;

a) Calculate the pH of a 0.320 M NaOH solution.

b) Calculate the pH of a 0.750 M HC₄H₇O₂ solution.