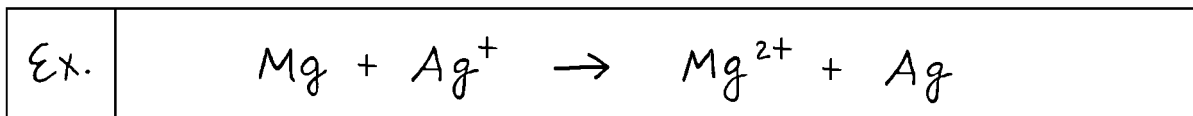


2005 AP[®] CHEMISTRY FREE-RESPONSE QUESTIONS (Form B)**CHEMISTRY****Part B****Time—50 minutes****NO CALCULATORS MAY BE USED FOR PART B.**

Answer Question 4 below. The Section II score weighting for this question is 15 percent.

4. Write the formulas to show the reactants and the products for any FIVE of the laboratory situations described below. Answers to more than five choices will not be graded. In all cases, a reaction occurs. Assume that solutions are aqueous unless otherwise indicated. Represent substances in solution as ions if the substances are extensively ionized. Omit formulas for any ions or molecules that are unchanged by the reaction. You need not balance the equations.

Example: A strip of magnesium is added to a solution of silver nitrate.



- (a) A solution of potassium carbonate is added to a solution of strontium chloride.
- (b) Propene is burned in air.
- (c) Excess ammonia is added to a solution of zinc nitrate.
- (d) Ethanoic acid (acetic acid) is added to a solution of barium hydroxide.
- (e) A small piece of potassium is added to water.
- (f) Powdered iron metal is strongly heated with powdered sulfur.
- (g) A solution of sodium fluoride is added to a solution of hydrochloric acid.
- (h) A strip of lead metal is added to a solution of silver nitrate.