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.

Ex.	$Mg + Ag^+ \rightarrow Mg^{2+} + Ag$

   (a) A solution of potassium phosphate is mixed with a solution of calcium acetate.

   (b) Solid zinc carbonate is added to 1.0 *M* sulfuric acid.

   (c) A solution of hydrogen peroxide is exposed to strong sunlight.

   (d) A 0.02 *M* hydrochloric acid solution is mixed with an equal volume of a 0.01 *M* calcium hydroxide solution.

   (e) Excess concentrated aqueous ammonia is added to solid silver chloride.

   (f) Magnesium ribbon is burned in oxygen.

   (g) A bar of strontium metal is immersed in a 1.0 *M* copper(II) nitrate solution.

   (h) Solid dinitrogen pentoxide is added to water.