2009 AP® CHEMISTRY FREE-RESPONSE QUESTIONS (Form B)

CHEMISTRY

Part B

Time—40 minutes

NO CALCULATORS MAY BE USED FOR PART B.

Answer Question 4 below. The Section II score weighting for this question is 10 percent.

EXAMPLE:

4. For each of the following three reactions, write a balanced equation in part (i) and answer the question in part (ii). In part (i), coefficients should be in terms of lowest whole numbers. Assume that solutions are aqueous unless otherwise indicated. Represent substances in solutions as ions if the substances are extensively ionized. Omit formulas for any ions or molecules that are unchanged by the reaction. You may use the empty space at the bottom of the next page for scratch work, but only equations that are written in the answer boxes provided will be graded.

(i) Ba	lanced equation: $Mg + 2 Ag^{\dagger} \longrightarrow Mg^{2+} + 2 Ag^{\dagger}$
(ii) W	hich substance is oxidized in the reaction? Mg is oxidized.
A bari	
	m nitrate solution and a potassium fluoride solution are combined and a precipitate forms.
(i) B	alanced equation: