Marking Scheme: *Questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.*

Question: 1

A. Define following with examples:
   a. Efflorescence
   b. Deliquescence

B. Why sulphuric acid is dibasic acid. Explain with the help of equations.

C. Explain the term acid rain. Give balanced equations for the formation of nitric acid in acid rain.

Question: 2

A. Give the balanced equation for the preparation of following salts:
   a. Lead sulphate   b. iron (III) chloride

B. Explain the action of acids on metals with two examples.

C. Calculate the percentage by weight of the following: [H=1, S=32, P=31, O=16]
   a. Sulphur in sulphuric acid
   b. phosphorus in phosphoric acid

Question: 3

A. Calculate the weight of potassium nitrite formed by thermal decomposition of 15.15 g of potassium nitrate [K=39, N=14, O=16]

B. Calculate the weight of calcium chloride obtained from 10 g of $CaCO_3$.and volume of CO_2 at s.t.p
   $CaCO_3 + 2HCl \rightarrow CaCl_2 + H_2O + CO_2$ [Ca=40, Cl=35.5, C=12, O=16, H=1]

C. A gaseous hydrocarbon weighs 0.70 g and contains 0.60 g of carbon. Find the molecular formula of the compound if its molecular weight is 70. [C=12, H=1]