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**PY - 105****B.Pharmacy I Semester**

Examination, December 2014

**Pharmaceutical Chemistry - II (Inorganic)****Time : Three Hours****Maximum Marks : 70**

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
 ii) All parts of each question are to be attempted at one place.  
 iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.  
 iv) Except numericals, Derivation, Design and Drawing etc.

1. a) What do you mean by ionization enthalpy?  
 b) What is ionic radii?  
 c) Discuss the properties of d-block elements.  
 d) Discuss the properties of s and p block elements.

OR

Discuss the various sources of impurities in pharmaceutical products.

2. a) What is limit test?  
 b) What is essential and trace elements?  
 c) Describe the principle and procedure for limit test of chloride.  
 d) Describe the principle and procedure for limit test of iron and sulphate.

OR

Explain the principle, apparatus and procedure for limit test of arsenic.

3. a) Write two therapeutic uses of lithium carbonate.  
 b) Write two uses of iodine solution.  
 c) Write the preparation and uses of Grignard's reagent.  
 d) Write molecular formula, molecular weight, preparation and uses of the following:  
 i) Sodium chloride ii) Calcium carbonate

OR

Explain the role of sodium, potassium, calcium and chloride ions in the human body.

4. a) Write two important uses of boron trifluoride.  
 b) Write two therapeutic uses of aluminum hydroxide gel.  
 c) Explain the important functions of iron and iodine in human body.  
 d) Write molecular formula, molecular weight, preparation and uses of the following  
 i) Boric acid ii) Potassium chloride

OR

Write molecular formula, molecular weight, preparation and uses of the following

- i) Ferrous sulphate ii) Hydrogen peroxide

5. a) Write two examples of diagnostic agents.  
 b) What are radiopharmaceuticals?  
 c) Write the preparation and uses of potassium permanganate.  
 d) Discuss the applications of radiopharmaceuticals.

OR

Write molecular formula, molecular weight, preparation and uses of the following:

- i) Zinc sulphate ii) Magnesium sulphate