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**25-PC-21**

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION  
MAY - JUNE 2025**

**PHARMACEUTICAL CHEMISTRY**

Paper - I

**[Principles of Inorganic Pharmaceutical Chemistry - II]**

*[Max. Marks : 75]*

*[Time : 3:00 Hrs.]*

*[Min. Marks : 26]*

**Note :** Candidate should write his/her Roll Number at the prescribed space on the question paper.  
Student should not write anything on question paper.  
Attempt all five questions. Each question carries an internal choice.  
Each question carries **15 marks**.

**Q. 1 a)** How purities can be tested in Pharmaceutical Chemistry ? Describe.

**(7½ Marks)**

**b)** Discuss important methods used to purify inorganic substances.

**(7½ Marks)**

**OR**

**a)** Explain permissible impurities in pharmaceutical substances.

**(7½ Marks)**

**b)** Describe limit tests of sulphate.

**(7½ Marks)**

**Q. 2 a)** What do you mean by Antacids ? Discuss synthesis, properties and uses of magnesium carbonate.

**(7½ Marks)**

**b)** What are Adsorbents ? Give the synthesis, properties and uses of Activated charcoal.

**(7½ Marks)**

**OR**

**a)** What are Saline Cathartics ? Give synthesis, properties and uses of Disodium hydrogen phosphate.

**(7½ Marks)**

**b)** What are Dusting Powders ? Discuss synthesis, properties and uses of Zinc oxide.

**(7½ Marks)**

**Q. 3** Describe synthesis, properties and uses of the following compounds (**any three**) -

**(5 Marks each)**

i) Hypophosphorus acid.

ii) Sodium Metabisulphite.

iii) Potassium Iodide.

iv) Alum.

v) Zinc Chloride.

P.T.O.

**Q. 4** What are Radio Isotopes ? Describe the applications of radio isotopes used in pharmacy with suitable examples. **(15 Marks)**

**OR**

Discuss the methods of preparation and uses of followings radio active pharmaceuticals -

i) Iodine  $^{125}$  **(7½ Marks)**

ii) Sodium Phosphate  $P^{32}$  **(7½ Marks)**

**Q. 5 a)** Describe the role and importance of calcium in human body and also give its deficiency disorders. **(7½ Marks)**

**b)** Discuss preparation, properties and uses of calcium acetate. **(7½ Marks)**

**OR**

Describe preparation, properties and uses of Ferrous fumarate and Ferrous gluconate. **(15 Marks)**

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