

INDIRA UNIVERSITY, PUNE

SCHOOL OF PHARMACY- PHARM D

Term End Examination (2025 Pattern) April- May – 2026- First Year

Course Name: Pharmaceutical Inorganic Chemistry
Course Code: 1.5

Max. Marks: 70
Time: 3:00 Hrs.

Instructions

- All Questions are Compulsory. Write two sections on separate answersheets.
 - Neat diagram must be drawn wherever necessary.
 - Figures to the right indicate full marks.
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Section : I

Q.1. Write in detail about redox titrations, discuss the principle, types and applications of redox titration. **(10 Marks)**

OR

Q.1. Write in detail about metal ion indicators, masking and demasking reagents. State the principle of complexometric titration. **(10 Marks)**

Q.2. Solve any five **(15 Marks)**

- What is an error? Explain different types of errors.
- What is acid-base titration? Explain with an example.
- Enlighten redox reactions. Give definition of oxidation and reduction.
- Short note on Precipitation titrations
- Discuss indicators used in complexometric titration.
- Explain i) Co-precipitation ii) Post-precipitation
- What is the limit test? Explain the limit test for sulphate.

Q.3. Write shorts on any two **(10 Marks)**

- Write in detail about volumetric analysis.
- Summarise Ostwald's theory.
- What is precipitation titration? Explain Volhard's and Modified Volhard's method.
- Describe the limit test for chloride with its principle, reaction, and procedure.

Section : II

Q.4. Explain in detail the steps involved in gravimetric analysis. Enlist its applications and limitations. **(10 Marks)**

OR

Q.4. Give preparation, assay, and use of Hydrogen peroxide as an antimicrobial agent. **(10 Marks)**

Q.5. Solve any five **(15 Marks)**

- a) Why is oxygen used as an inorganic gas?
- b) Classify acidifiers with examples.
- c) Define cathartics and classify them with suitable examples.
- d) Explain Copper as an essential trace element.
- e) State the functions of i) Iodine ii) Zinc
- f) What are dentifrices?
- g) Define miscellaneous compounds

Q.6. Write shorts on any two **(10 Marks)**

- a) Short note on Oral Rehydration Salt (ORS).
- b) Define cathartics and classify them with suitable examples.
- c) Summarise various pharmaceutical compounds which act as antimicrobial agents.
- d) Discuss the medicinal uses of oxygen and carbon dioxide.
