

Total No. of Questions : 6]

SEAT No. :

**P3030**

[Total No. of Pages :2

**[5452] - 1013**

**F.Y. B. Pharmacy**

**PHARMACEUTICAL ANALYSIS - I**

**(2015 Pattern) (Semester - II)**

*Time : 3 Hours]*

*[Max. Marks :60*

*Instructions to the candidates:*

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *All questions carry equal marks.*
- 5) *All questions are compulsory.*

**SECTION - I**

**Q1)** What is differentiating solvent? Discuss solvents used in non-aqueous titration. Explain preparation and standardization of 0.1 M Perchloric acid solution. **[10]**

OR

Explain in detail Theories of acid base indicators. What do you mean by mixed and universal indicators.

**Q2)** Answer the following (any four). **[12]**

- a) Define Primary standard. Why  $\text{KMnO}_4$  cannot be used as primary standard.
- b) Distinguish between Accuracy and Precision.
- c) Explain
  - i) Normality
  - ii) Molarity
  - iii) Molality
- d) What do you mean by Protogenic and Protophilic solvent explain with examples.
- e) Explain T-test in brief.
- f) Discuss in brief external indicators.
- g) Polyhydric alcohols are used in the assay of boric acid. Give reason.

**P.T.O.**

**Q3)** Write short notes on (any two) **[8]**

- a) Principle involved in redox titration with examples.
- b) Pharmaceutical Applications of Non-aqueous titrations.
- c) Errors in analysis.
- d) Explain neutralization curves (with examples) of
  - i) Strong acid & Strong base titration.
  - ii) Strong base & weak acid titration.

### **SECTION - II**

**Q4)** Explain electron balance method. Add a note on end point detection in redox titration. **[10]**

OR

Explain Principle of Volhard's method and elaborate its application in determination of Chloride. Give its advantages over Mohr's method.

**Q5)** Answer the following (any four). **[12]**

- a) How will you prepare and standardize 0.1 AgNO<sub>3</sub> solution.
- b) How solubility product and common ion effect affects precipitation.
- c) Discuss advantages and limitations of Mohr's method.
- d) Differentiate between iodimetric and iodometric titration.
- e) Nitrobenzene is used in the assay of ammonium chloride. Explain.
- f) How will you prepare and standardize 0.05 M disodium EDTA solution.
- g) Comment on organic precipitants.

**Q6)** Write short note on (any two). **[8]**

- a) Sodium Nitrite Titration.
- b) Masking and Demasking agents.
- c) Pharmaceutical Applications of Gravimetry.
- d) Titanous Chloride titration.

