

Total No. of Questions : 6]

SEAT No. :

P2083

[5552]-206

[Total No. of Pages : 2

First Year B. Pharmacy
PHARMACEUTICAL ANALYSIS - I
(2015 Pattern) (Semester - II)

Time : 3 Hours]

[Max. Marks : 60

Instructions to the candidates:

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

SECTION - I

Q1) Explain theoretical considerations, limitations and Non-aqueous solvents in non-aqueous titration **[10]**

OR

What are neutralization titrations? Explain in detail Universal and mixed indicators with suitable examples.

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

- a) Define Primary standard and secondary standard with examples.
- b) Write about T-test.
- c) Differentiate between volumetric analysis and gravimetric analysis.
- d) Explain effect of temperature on non-aqueous titrations.
- e) What is buffer index? Write equation to calculate buffer index.
- f) Discuss in brief Ostwald's theory.
- g) Explain the terms Molarity, Normality and Molality.

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

- a) Permanganate titrations.
- b) Give principle and reactions involved in assay of Hydrogen peroxide solution.
- c) Types of errors.
- d) Titration of amino acid.

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SECTION - II

Q4) Discuss in detail unit operations in gravimetry. Add note on applications of Gravimetric analysis. **[10]**

OR

What is pM indicator? Discuss masking and demasking in detail.

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

- a) How will you prepare and standardize 0.1 N AgNO₃ solution.
- b) Differentiate between co-precipitation and post precipitation.
- c) Give two examples of each organic and inorganic precipitating agents.
- d) Compare Mohr's method and Volhard's method.
- e) "Sulphuric acid is used in redox titrations" Give reason.
- f) Explain Assay of calcium gluconate as per I.P.
- g) Explain common ion effect. How is it utilized for controlling the concentration of weak electrolyte.

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

- a) Sodium Nitrite Titration.
- b) Ostwald ripening and von weimarn ratio.
- c) Replacement Complexometric titrations.
- d) Give principle and reactions for a type of precipitation titration which involves formation of coloured precipitate.

