Total No. of Questions—**6**] [Total No. of Printed Pages—**3**

Seat No.	

[5245]-2003

F.Y. B. Pharmacy (Second Semester) EXAMINATION, 2017

PHARMACEUTICAL ANALYSIS–I

(2015 PATTERN)

Time : Three Hours **Maximum Marks : 60**

N.B. **:—** (*i*) *All* questions are compulsory.

(*ii*) Answers to the two sections should be written in separate answer-books.

(*iii*) Neat diagrams must be drawn wherever necessary.

(*iv*) Figures to the right indicate full marks.

SECTION I

1. 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 neutralization curves (with examples) of : [10]

(*a*) Strong acid and strong base titration

(*b*) Strong base and weak acid titration.

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

(*a*) Define primary standard. Enlist requirements of primary standards.

P.T.O.

(*b*) Write about Accuracy and Precision.

(*c*) Calculate equivalent weight of sodium oxalate, potassium permanganate and aluminium hydroxide.

(*d*) What do you mean by protogenic and protophilic solvent ? Explain with examples.

(*e*) Explain T-test in brief.

(*f*) Discuss in brief Ostwald's theory.

(*g*) Explain the terms Bufer, Buffer index and buffer capacity.

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

(*a*) Primary and secondary standards.

(*b*) Pharmaceutical applications of non-aqueous titration.

(*c*) Errors in analysis.

(*d*) Theories of acid base indicators.

SECTION II

4. 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 applications in determination of chloride. Give its advantage over Mohr's method.

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

(*a*) How will you prepare and standardize 0.1 N $AgNO_3$ 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 titrations.

(*e*) Starch solution is added near the end point in assay of iodine. Explain.

(*f*) How will you prepare and standardize 0.5 M disodium EDTA solution ?

(*g*) Comment on Organic precipitants.

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

(*a*) Sodium nitrite titration

(*b*) Masking and demasking agents

(*c*) Pharmaceutical applications of Gravimetry

(*d*) Titanious chloride titration.