M. P. M. (Sem. I) (CBCS) Examination
January – 2017
BP103T : Pharmaceutical Analysis - I

Faculty Code : 014

Subject Code : 003105

Time : **3 Hours]**   [Total Marks : **80**

Instructions : (1) Answer any three from each section except question 1 and 5 are compulsory

(2) Figure to the right indicates marks

(3) Draw neat and clean diagrams as required

SECTION – I

1 Answer Any **Seven** out of given Ten questions :   2×7=14

(a) Give a suitable classification of errors.

(b) Explain Ligand and Chelate with examples.

(c) What is a pM indicator?

(d) Give Henderson-Hesselbach equation.

(e) Enlist different types of redox titrations.

(f) Why Starch indicator should be added near the end point in iodine titration?

(g) Differentiate accuracy and precision.

(h) Why Nitrobenzene is added in the estimation of chloride by Volhard's method?

(i) Differentiate specificity and selectivity of the analytical data.

(j) Define pH.

2 Answer the following :

(a) Explain: Validation, Accuracy, Precision, Limit of   7
Detection, Calibration

(b) Give an account of Karl-Fischer titrations.   6

3   Answer the following :

(a)   Write a note on Fajan's method of argentometric   **7**
titration.

(b)   What is non-aqueous titration? Explain types of   **6**
non-aqueous solvents.

4   Answer the following :

(a)   Discuss the assay principle with reaction of magnesium   **7**
salts by complexometry.

(b)   Discuss the principle with reaction involved in   **6**
Mohr's method.

SECTION – II

5   Answer Any Two out of given Three questions :   **2×7=14**

(a)   Write note on solvent, titrant and indicator used for
weak acid and weak base substance in non-aqueous
titration.

(b)   Write a note on estimation of Nitrogen in organic
compounds by Kjeldhal method.

(c)   Discuss masking and demasking agent in detail.

6   Answer the following :

(a)   What is gravimetric analysis? Enlist the steps   **7**
involved in gravimetric analysis. Discuss in detail the
precipitation techniques employed in gravimetry.

(b)   Explain theory of acid - base indicator.   **6**

7   Answer the following :

(a)   Discuss the importance of quality control and quality   **7**
assurance in formulation analysis.

(b)   Describe diazotization nitrite titration.   **6**

8   Answer the following :

(a)   Explain in detail about Iodometry and Iodimetry   **7**
titration.

(b)   Give preparation and standardization of   **6**
0.1 N Perchloric acid.