

1670

**B. Pharmacy 1st Semester Examination**

**Pharmaceutical Analysis-I (OS)**

**HBP-101**

**Time : 3 Hours**

**Max. Marks : 80**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt five questions in all, selecting one question from each sections A, B, C and D. Section E is compulsory.

**SECTION - A**

1. (a) Postulates the rules for retaining significant digits in figures. (8)
- (b) Enlist the general requirements to be shown by primary standards. (8)
2. (a) Define the term "Buffer". How the Buffer show its action, Explain? (7)
- (b) Briefly discuss the theories of neutralization indicators with suitable examples. (9)

**SECTION - B**

3. (a) How the internal oxidation reduction indicators show changes at the end point? (6)
- (b) Give the principle and method of analysis of hydrogen peroxide using standard 0.02M permanganate solution. (10)

**[P.T.O.]**

4. (a) Discuss the principle of iodimetric titrations, with suitable example. (8)
- (b) How the end point is detected in the iodometric titrations. (8)

### SECTION - C

5. Give the principle, procedure & detection of end point of method of analysis used for determination of Chlorides and Bromides by Mohr's titration. (16)
6. (a) Discuss about the types of indicators used in precipitation titration. (10)
- (b) How will you standardize silver nitrate solution. (6)

### SECTION - D

7. (a) Discuss about precautions to be taken during precipitation in gravimetric method of analysis. (8)
- (b) Discuss the theory and instrumentation of thermogravimetric method of analysis with suitable example. (8)
8. (a) Discuss the basic theory and procedure of determination of Calcium as Calcium Oxalate. (8)
- (b) Discuss, briefly, about the organic precipitants used in gravimetric method of analysis. (8)

### SECTION - E

9. Fill in the blanks:
- (i) 1 ml of "..... volume" hydrogen peroxide will yield 20 ml of oxygen measured at standard temp. and pressure.

- (ii) Standardisation of 0.1 M hydrochloride solution can be performed by titrating against ..... solution.

- (iii) In the reaction



The specie ..... is oxidized and the specie ..... is reduced.

- (iv) The three equivalent weights of  $\text{KMnO}_4$  are

(i)  $\frac{\text{Molecular Wt.}}{?}$  in Acidic medium

(ii)  $\frac{\text{Molecular Wt.}}{?}$  in Basic medium

(iii)  $\frac{\text{Molecular Wt.}}{?}$  in Neutral medium

- (v) Gay Lussac method is also called as ..... method for determination of silver with Chloride.

- (vi) In Mohr's procedure, at the end point the ..... ions combine with ..... ions to form the sparingly soluble, red, .....

- (vii) The process of warming the precipitate for sometime in contact with the liquid from which it was formed to obtain complete precipitate in a form which can be readily filtered is called.....

- (viii) In thermogravimetric curve, the weight change is recorded as a function of ..... (2×8=16)