

**B. PHARM.**  
**(SEM I) THEORY EXAMINATION 2018-19**  
**PHARMACEUTICAL ANALYSIS-I**

**Time: 3 Hours****Total Marks: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief. 2 x 10 = 20**
- a. Define the term oxidation number.
  - b. What is Molality? Explain by using suitable example.
  - c. Define "Standard Value".
  - d. Calculate equivalent weight of  $\text{KMnO}_4$  in neutral media in a redox reaction.
  - e. Write the method of preparation for 0.2N NaOH solution.
  - f. What do you understand by pH?
  - g. Define the term "digestion".
  - h. What is indicator?
  - i. If a silver coin contains 20g of gold as standard and after analysis, the analyst observed 19.00g of gold present in the coin. Calculate the percentage error for the above observation.
  - j. What do you understand by end point?

**SECTION B**

- 2. Attempt any three of the following: 10 x 3 = 30**
- a. Give the details about oxidation reduction curves with suitable examples.
  - b. Write a note on Accuracy and Precision with suitable example.
  - c. Write a note on Gay Lussac's Method.
  - d. Write a note on indicators used in redox titrations.
  - e. Write a note on neutralization curve between Strong acid and strong base with complete illustration including neutralization curve graph.

**SECTION C**

- 3. Attempt any one part of the following: 10 x 1 = 10**
- (a) Write the concepts of acid and base on the basis of Arrhenius theory, Bronsted Lowry theory and Lewis Theory.
  - (b) Write a detailed note on Neutralization Curve between weak acid and strong base.
- 4. Attempt any one part of the following: 10 x 1 = 10**
- (a) Give the various theories of indicators used in acid base titrations.
  - (b) Write a note on Fajan's Method
- 5. Attempt any one part of the following: 10 x 1 = 10**
- (a) Give the details of Primary and Secondary Standards.
  - (b) How you will estimate Barium as Barium sulphate through gravimetric analysis?
- 6. Attempt any one part of the following: 10 x 1 = 10**
- (a) Write a note on Law of Mass action and Henderson – Hasselbach equation.
  - (b) How you will prepare and standardize 1N  $\text{KMnO}_4$ ?
- 7. Attempt any one part of the following: 10 x 1 = 10**
- (a) Write a short note on Precipitation, Co-precipitation and Post precipitation.
  - (b) Explain the various steps involved in Gravimetric analysis.