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B PHARM
(SEM I) THEORY EXAMINATION 2017-18
PHARMACEUTICAL ANALYSIS-I

Time: 3 Hours**Total Marks: 100****Notes:** Attempt all Sections. Assume any missing data.**SECTION A**

- 1. Attempt all questions in brief. 2 x 10 = 20**
- Define pharmaceutical analysis.
 - Define Acid and Base according to lewis theory.
 - Write a formula of Molarity and Normality.
 - Draw the structure of phenolphthalein in two different medium.
 - Define solubility product and show its relation with ionic product.
 - Differentiate between Titrant and Titrand.
 - Define Supersaturation, Co-precipitation, Post-precipitation and Digestion.
 - Define concept of Oxidation and Reduction.
 - Calculate Equivalent weight of $Kmno_4$ in different medium.
 - Differentiate between determinate and indeterminate error.

SECTION B

- 2. Attempt any three of the following: 10 x 3 = 30**
- Discuss the method of expressing concentration of solution.
 - Classify Acid-Base titration along their neutralization curve.
 - Explain the theory of weak base or weak acid in non aqueous titration.
 - Discuss titrations involving ceric ammonium sulphate and potassium permanganate.
 - Write a short note on Mohr's, Volhard's and Fajan's method in precipitation titration.

SECTION C

- 3. Attempt any one part of the following: 10 x 1 = 10**
- Differentiate between iodimetry and iodometry.
 - Write a short note on Law of mass action and Common ion effect.
- 4. Attempt any one part of the following: 10 x 1 = 10**
- What are Buffers? Explain the mechanism of action of buffer.
 - What are thermogravimetric curves? Explain with example barium as barium sulphate.
- 5. Attempt any two parts of the following: 5 x 2 = 10**
- Describe the significance of quantitative analysis in quality control.
 - What are precipitation titrations? Discuss effect of Acid, temperature and solvent on solubility of precipitates.
 - What is salt hydrolysis? Discuss the classification of salt hydrolysis.
- 6. Attempt any one part of the following: 10 x 1 = 10**
- What are organic precipitants? Also discuss their role in gravimetry.
 - What are primary standards? And how they are differ from secondary standards?
- 7. Attempt any one part of the following: 10 x 1 = 10**
- What are role of solvents in Acid base titrations?
 - What are Redox indicators? Briefly describe Oxidation-reduction curves.