

Enrolment No.:-----

## Maliba Pharmacy College

030020304- Pharmaceutical Analysis 1

Max. Marks: 40

Date: 26/11/2013

- Attempt any **FIVE** questions.
- Each question carries **08** marks.
- Make suitable assumption whenever necessary.
- Figures to the right indicate full marks.

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|------------|--|----|
| <b>Q.1</b> | <b>A)</b> Discuss applications of complexometric titrations  | 04 |
|            | <b>B)</b> 50.0 ml of a solution which is 0.01 M in calcium cation and buffered at pH 10.0 is titrated with 0.01 M EDTA solution. Calculate values of pCa after addition of 0 ml, 10.0 ml, 50.0 ml and 60.0 ml of titrant.<br>(The $K_{\text{eff}}$ value for complex of calcium = $1.8 \times 10^{10}$ ) | 04 |
| <b>Q.2</b> | <b>A)</b> Define non-aqueous titration and discuss differentiating and leveling effect of solvent  | 04 |
|            | <b>B)</b> Classify and define different types of solvent with suitable examples.   | 04 |
| <b>Q.3</b> | <b>A)</b> Enlist different factors affecting solubility of slightly soluble salts and discuss any two in detail.   | 04 |
|            | <b>B)</b> 50.0 ml of 0.1 M sodium chloride solution is titrated with 0.1 M silver nitrate solution. Calculate values of pCl after addition of 0 ml, 10.0 ml, 50.0 ml and 60.0 ml of titrant. ( $K_{\text{sp}}$ for silver chloride = $1 \times 10^{-10}$ )   | 04 |
| <b>Q.4</b> | <b>A)</b> Write a short note on indicators used in precipitation titration   | 04 |
|            | <b>B)</b> Discuss Von Weimarn's theory of relative super saturation for gravimetric method   | 04 |
| <b>Q.5</b> | <b>A)</b> Discuss different types of precipitations in gravimetric method of analysis.   | 04 |
|            | <b>B)</b> Write a short note on organic precipitant used for gravimetric analysis  | 04 |
| <b>Q.6</b> | <b>A)</b> Enlist different type of Redox titration. Discuss any one in detail.   | 04 |
|            | <b>B)</b> Differentiate Iodometry and Iodimetry  | 04 |
| <b>Q.7</b> | <b>A)</b> Describe preparation and standardization of 0.1M sodium thiosulphate solution  | 04 |
|            | <b>B)</b> Enlist different end point detection method used in redox titration. Discuss them.   | 04 |