

**GUJARAT TECHNOLOGICAL UNIVERSITY****B. Pharm. - SEMESTER-I • EXAMINATION – SUMMER-2016****Subject Code: 2210003****Date: 27/5/2016****Subject Name: Pharmaceutical Analysis-I****Time: 02:30 pm – 05:30 pm****Total Marks: 80****Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Define following terms – **06**  
 1) Accuracy, 2) Precision, 3) Validation, 4) Quality Assurance  
 5) Quality Control, 6) LOQ and LOD
- (b) What is sampling? Explain Sampling techniques and hazards during sampling of drugs? **05**
- (c) Define Errors and explain classification of errors and minimization of errors. **05**
- Q.2** (a) Explain Kjeldahl Method. **06**
- (b) Define standardization and explain primary and secondary standards. **05**
- (c) Give the reasons **05**  
 1) Use of pyridine in karl fischer reagent.  
 2) Why methanol is added in Karl Fischer reagent.
- Q.3** (a) 1) Law of mass action, 2) Ionization of water **06**
- (b) Explain the hydrolysis of salts obtained from WA and SB. **05**
- (c) Define Indicators and explain theories of indicators. **05**
- Q.4** (a) What is redox titration? Explain redox indicators. **06**
- (b) Differentiate iodometry and iodimetry. **05**
- (c) Explain sodium nitrite titration. **05**
- Q.5** (a) Define precipitation titration. Explain the Fajan's method used for detection of end point in precipitation titration. **06**
- (b) Solvents used in non-aqueous titration. **05**
- (c) Write the application of non-aqueous and complexometric titration. **05**
- Q. 6** (a) 1) Masking and demasking agent **06**  
 2) Write the principle behind the assay of Mg stearate
- (b) Write the principle used behind complexometric titration? Define Ligands and classify it. **05**
- (c) pM Indicators **05**
- Q.7** (a) What is gravimetric analysis? Explain advantage, disadvantage and application of gravimetric analysis. **06**
- (b) Explain – Co-precipitation **05**
- (c) Define following terms **05**  
 1) Normality, 2) Molarity, 3) Titration, 4) Thermogravimetry  
 5) Equivalent Point

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