

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 1- EXAMINATION – WINTER - 2018

Subject Code: 2210003**Date: 07/01/2019****Subject Name: Pharmaceutical Analysis-I****Time: 10:30 AM TO 01:30 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) Explain the neutralization curve of acid base titration with suitable example. **06**
 (b) What is redox titration? Explain redox indicators. **05**
 (c) Define Indicators and explain theories of indicators. **05**
- Q.2** (a) Prepare the following four set of data (Mention standard Value) **06**
 1. Accuracy and no Precision.
 2. Precision and no Accuracy.
 3. No precision and No accuracy.
 4. Accuracy and precision
 (b) Define Errors and explain classification of errors and minimization of errors. **05**
 (c) Explain – Co-precipitation. **05**
- Q.3** (a) What is the pH of 50 ml 0.1 M HCL and 100 ml of 0.5 M H₂SO₄. **06**
 (b) What do you mean by Quality Assurance and Quality Control? Give importance of Pharmaceutical Analysis. **05**
 (c) What is non – aqueous titration? And explain leveling and differentiating effect of solvent with example? **05**
- Q.4** (a) Give comment on following (Any Two) **06**
 1. Molecular weight of KMnO₄ changes with media.
 2. Starch indicator should be added toward the end point in iodometric titration
 3. Mohr's titration is performed in slightly alkaline condition
 (b) Write a short note on Volhard's method of precipitation titration? **05**
 (c) Explain sodium nitrite titration. **05**
- Q.5** (a) Give a detail account on Karl-fisher titration. **06**
 (b) What is complexometric titration? Give the different types of complex metric titration? **05**
 (c) Describe pM Indicators. **05**
- Q. 6** (a) 1) Law of mass action, 2) Ionization of water **06**
 (b) Define Ligands and classify it with at least one example of each. **05**
 (c) 1) Masking and demasking agent **05**
 2) Write the principle behind the assay of Mg stearate.
- Q.7** (a) Theory of Von Weimarn's ratio for relative super saturation to control the precipitation in gravimetric analysis. **06**
 (b) What is the solubility of 0.1 N AgCl in water and 0.1 N NaCl solution.(K_{sp}=10⁻¹²) **05**
 (c) What is gravimetric analysis? Explain advantage, disadvantage and application of gravimetric analysis. **05**