

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 1 EXAMINATION – SUMMER -2019**

**Subject Code: BP102TP****Date: 30-05-2019****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) Answer the following: **06**  
 1. Define : precision, accuracy, oxidation, ligand  
 2. Disodium edetate is a hexadentate ligand. Comment.  
 3. Differentiate iodimetry and iodometry.
- (b) What is buffer solution? Derive Henderson Hasselbach equation for finding pH of buffer solution? **05**
- (c) Define Hydrolysis and derive equation for finding pH of aqueous solution of acetic acid with ammonium hydroxide **05**
- Q.2** (a) Write note on sources of impurities in medicinal agents. **06**  
 (b) Describe diazotization nitrite titration **05**  
 (c) Discuss method of detecting end point by potentiometry titration. **05**
- Q.3** (a) Give ideal properties of reference electrode. Write note on SCE. **06**  
 (b) Describe factors affecting conductance **05**  
 (c) Write scope of pharmaceutical analysis. Enlist different analytical techniques. **05**
- Q.4** (a) Write a note on Volhard's method **06**  
 (b) Give comment **05**  
 1. Mohr's titration is carried out in acidic media.  
 2. Water is differentiating solvent for HCl and CH<sub>3</sub>COOH.  
 3. Starch indicator should be freshly prepared.  
 4. Acetic acid is added in preparation of perchloric acid.  
 5. Electrolyte solution is used for wash precipitate
- (c) Enumerate different types of errors and write in detail about methods of minimizing errors **05**
- Q.5** (a) Define limit test. Write a principle and reaction of limit test for chloride or iron. **06**  
 (b) Explain about construction and working of dropping mercury electrode **05**  
 (c) Write in brief about masking and demasking agents **05**
- Q.6** (a) Enumerate different types of redox titrations and mention about application of it. **06**  
 (b) Explain neutralization theory for acid base indicators **05**  
 (c) What is Argentometric titration? Describe Mohr's method for determination of chloride **05**
- Q.7** (a) Write a brief note on non-aqueous titrations **06**  
 (b) Explain various precipitation techniques in gravimetric analysis **05**  
 (c) Explain common ion effect and diverse ion effect with example **05**