

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER- I -- EXAMINATION – SUMMER -2022

Subject Code: BP102TP**Date: 05/09/2022****Subject Name: Pharmaceutical Analysis-I****Time:10:30 A.M To 1:30 P.M****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- 1) Accuracy 2) Significant figures 3) Normality 4) Stoichiometric point 5) Precision 6) Primary standards **06**
- (b) Discuss the principle and reaction involved in limit test of Iron as per IP. **05**
- (c) Define Error. Describe the methods of minimization of errors. **05**
- Q.2** (a) What is hydrolysis? Derive equation for finding pH of aqueous solution of salt of weak acid and strong base. **06**
- (b) Explain Buffer in detail. Write equation to calculate pH of buffer solution. **05**
- (c) Discuss in brief various solvents used in non aqueous titration. **05**
- Q.3** (a) Write a short note on volhard's method of precipitation titration? **06**
- (b) Give comment on following **05**
1. Starch indicator should be added toward the end point in iodometric titration.
 2. Mohr's titration carried out in acidic media.
- (c) Explain ligand. Write detail note on masking and demasking phenomenon. **05**
- Q.4** (a) What is gravimetric analysis? Explain merits, demerits and application of gravimetric analysis. **06**
- (b) Enlist redox titration and explain diazotization nitrite titration in detail. **05**
- (c) pM Indicator. **05**
- Q.5** (a) What is reference electrode? Mention the type of reference electrodes. Describe in detail of SCE. **06**
- (b) Discuss in detail different component of polarogram. **05**
- (c) Differentiate between 1. Differentiating and leveling effect **05**
2. Iodometry and Iodimetry
- Q.6** (a) Write a detail note on end point determination of potentiometric titration. **06**
- (b) Discuss about co-precipitation and post precipitation. **05**
- (c) Explain DME in detail. **05**
- Q.7** (a) What is complexometric titration? Give different types of complexometric titration. **06**
- (b) Write a note on Fajan method. **05**
- (c) Write preparation and standardization of ceric ammonium sulphate. **05**
