

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 1 EXAMINATION – WINTER -2024

Subject Code: BP102TP**Date: 13/02/2025****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.

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| Q.1 | (a) Write in detail about Errors. | 06 |
| | (b) Classify analytical methods. Define: Accuracy, Precision. | 05 |
| | (c) Write short note on Pharmacopoeia. | 05 |
| Q.2 | (a) Which factors affect conductance? Explain it in detail. | 06 |
| | (b) Write definition of Molality and Normality. Write a note on preparation and standardization of molar and normal solutions of Oxalic acid and NaOH. | 05 |
| | (c) Briefly write on primary and secondary standards. | 05 |
| Q.3 | (a) Write in detail about end point detection method in acid base titration. | 06 |
| | (b) Define: (1) Limiting current (2) Migration current (3) Residual current (4) Diffusion current (5) Potentiometry | 05 |
| | (c) Explain Redox titration. | 05 |
| Q.4 | (a) Which electrodes are used in Potentiometry? Explain reference electrode in detail. | 06 |
| | (b) Write short note on methods of expressing concentration. | 05 |
| | (c) Write short note on Principles and application of Redox titration. | 05 |
| Q.5 | (a) Write in detail about conductivity cell, conductometry titrations and its applications. | 06 |
| | (b) Enlist precipitation titration method and write in detail on Mohr's method. | 05 |
| | (c) Write short note on principle and steps involved in gravimetric analysis. | 05 |
| Q.6 | (a) Explain theory of strong, weak and very weak acids and bases in acid base titration. | 06 |
| | (b) Which are nonaqueous titration? Briefly write on acidimetry and alkalimetry titration and estimation of Sodium benzoate. | 05 |
| | (c) Write short note on theory of acid-base indicators. | 05 |
| Q.7 | (a) Explain complexometry titration in detail. | 06 |
| | (b) Explain estimation of ephedrine HCL. | 05 |
| | (c) Write short note on Polarography. | 05 |
