

Seat No.: _____

Enrolment No. _____

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

Subject Code: BP102TP

Date: 03/01/2019

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.**

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|------------|--|-----------|
| Q.1 | (a) Define error. Classify the error and methods of their minimization. | 06 |
| | (b) Discuss various sources of impurities. | 05 |
| | (c) Write a note on dropping mercury electrode (DME). | 05 |
| Q.2 | (a) Explain in detail theories acid- base indicators. | 06 |
| | (b) Define buffer solution. Explain in detail Henderson-Hasselbach equation for finding pH of buffer solution. | 05 |
| | (c) What is non aqueous titration? Give merits, demerits and application of non aqueous titration. | 05 |
| Q.3 | (a) What is gravimetric analysis? Discuss steps involved in gravimetric analysis. | 06 |
| | (b) Discuss in detail about Diazotization titration. | 05 |
| | (c) What is hydrolysis? Derive equation for finding pH of aqueous solution of salt of strong acid and weak base. | 05 |
| Q.4 | (a) Write a short note on (I) Masking and Demasking reagents (II) pM indicators. | 06 |
| | (b) Define Ligand and Chelate. Give an account of different types of EDTA titrations. | 05 |
| | (c) Write a note on Volhard's method of Precipitation titration. | 05 |
| Q.5 | (a) Discuss the principle involved in the assay of magnesium sulphate IP'96. | 06 |
| | (b) Enlist types of redox titration and explain iodine titration in detail. | 05 |
| | (c) Explain in detail Mohr's method. | 05 |
| Q.6 | (a) Write a brief note on types of non aqueous solvents and leveling and differentiating effect of solvent. | 06 |
| | (b) Define terms: (i) Co Precipitation (ii) Primary standard compound (iii) Standardization (iv) Pharmacopeia (v) Normality. | 05 |
| | (c) Describe factors affecting on conductance. | 05 |
| Q.7 | (a) Comments: (1) Water is differentiating solvent for HCl and CH ₃ COOH. (2) Starch indicator should be added near the end point in iodine titration. (3) Electrolyte solution is used for wash precipitate. | 06 |
| | (b) Define Reference electrode. Enlist types of it and write a note on Saturated Calomel electrode (SCE). | 05 |
| | (c) Write a brief note on different techniques of analysis. | 05 |
