

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.

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|-------------|------------|---|----|
| Q.1 | (a) | Answer the following:
1. Define : precision, accuracy, oxidation, ligand
2. Disodium edetate is a hexadentate ligand. Comment.
3. Differentiate iodimetry and iodometry. | 06 |
| | (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
1. Mohr's titration is carried out in acidic media.
2. Water is differentiating solvent for HCl and CH ₃ 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 | 05 |
| | (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 |
