

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm - SEMESTER– III • EXAMINATION – SUMMER-2017

Subject Code: 230004

Date: 07/06/2017

Subject Name: Pharmaceutical Analysis-I

Time: 02:30 PM to 05:30 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) | Explain following term- Validation, Calibration, Precision, Accuracy, LOQ, Robustness | 06 |
| | (b) | Discuss how to minimize sampling error. | 05 |
| | (c) | Explain classification of pharmaceutical analysis in briefly. | 05 |
| Q.2 | (a) | What is hydrolysis? Derive equation for finding pH of aqueous solution of salt of weak acid and weak base. | 06 |
| | (b) | Write short note on pharmaceutical buffer. | 05 |
| | (c) | Discuss merits and demerits of non-aqueous titration over aqueous titration. | 05 |
| Q.3 | (a) | Explain factor affecting precipitation titration briefly. | 06 |
| | (b) | Write short note on volhard's method. | 05 |
| | (c) | Justify comment:
1. Mohr's titration is carried out in acidic media.
2. Starch indicator should be added near the end point in iodine titration.
3. KI is added in the preparation of iodine solution. | 05 |
| Q.4 | (a) | Write short note on iodometry and iodimetry titration. | 06 |
| | (b) | Discuss replacement titration of complexometric titration. | 05 |
| | (c) | Describe law of mass action in detail. | 05 |
| Q.5 | (a) | Explain theory of von weirmann's ratio for relative supersaturation and their importance. | 06 |
| | (b) | Explain following term: Masking agent and Demasking agent | 05 |
| | (c) | Write note about Diazotization titration. | 05 |
| Q. 6 | (a) | Write note on Kjeldhal method. | 06 |
| | (b) | Describe pM indicator in detail. | 05 |
| | (c) | Write short note on continuous extraction. | 05 |
| Q.7 | (a) | Explain leveling and differentiating effect of solvent in non-aqueous titration. | 06 |
| | (b) | Explain gasometric method. | 05 |
| | (c) | Write short note on counter current distribution. | 05 |
