

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 3- EXAMINATION –WINTER - 2018

Subject Code:230004

Date: 12/12/2018

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) | What is analytical method validation? Enlist validation parameter. Discuss any two parameters in detail. | 06 |
| | (b) | Define hydrolysis and Derive equation for finding pH of aqueous solution of salt of strong acid and weak base. | 05 |
| | (c) | Describe sampling techniques. | 05 |
| Q.2 | (a) | What is error? Write types of errors and how they minimized. | 06 |
| | (b) | Differentiate between QA and QC. | 05 |
| | (c) | Give a detailed account of Oxygen combustion flask method. | 05 |
| Q.3 | (a) | Explain the terms: (i) Co-precipitation (ii) Post precipitation (iii) Solubility product | 06 |
| | (b) | Discuss in detail about Diazotization nitrite titration. | 05 |
| | (c) | Write a note on Karl-Fischer titration. | 05 |
| Q.4 | (a) | Write a short note on Common ion effect and ionic product of water. | 06 |
| | (b) | Write a note on pM indicators. | 05 |
| | (c) | What is gravimetric analysis? Enlist the steps involved in gravimetric analysis. | 05 |
| Q.5 | (a) | Explain redox indicators in detail. | 06 |
| | (b) | What is buffer? Derive Henderson-Hasselbach equation. | 05 |
| | (c) | Explain Kjeldahl method for determination of nitrogen. | 05 |
| Q. 6 | (a) | Write a brief note on types of non aqueous solvents and leveling and differentiating effect of solvent. | 06 |
| | (b) | Give the difference between followings with suitable example
(1) Iodometric titration and Iodimetric titration
(2) Masking agent and Demasking agent | 05 |
| | (c) | Explain law of mass action. | 05 |
| Q.7 | (a) | Comments: (1) Nitrobenzene is used in Volhard's method
(2) KMnO_4 is not a primary standard compound.
(3) Electrolyte solution is used for wash precipitate. | 06 |
| | (b) | Write explanatory note on: Continuous extraction. | 05 |
| | (c) | Discuss in detail about Fajan's method. | 05 |
