

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – III • EXAMINATION – WINTER • 2015

Subject Code: 230004**Date: 06-01-2016****Subject Name: Pharmaceutical Analysis - I****Time: 10:30 am - 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) Enumerate and explain different types of complexometric titration. | 06 |
| | (b) Derive equation for finding pH of aqueous solution of salt of weak acid and strong base. | 05 |
| | (c) Explain in detail about Mohr's method. | 05 |
| Q.2 | (a) Describe in detail about gravimetric method of analysis. | 06 |
| | (b) Write note on solvent, titrant and indicator used in non-aqueous titration. | 05 |
| | (c) Write a brief note on neutralization curve. | 05 |
| Q.3 | (a) Write a note on Kjeldahl method. | 06 |
| | (b) What is validation? Explain all validation parameters. | 05 |
| | (c) I. Write a detail on ionic product of water.
II. Explain law of mass action. | 05 |
| Q.4 | (a) Explain solubility product constant and its applications. | 06 |
| | (b) Describe in detail "oxygen combustion flask method". | 05 |
| | (c) Give a detail account on methods of minimization of errors. | 05 |
| Q.5 | (a) Discuss the application of buffers in pharmaceutical field. | 06 |
| | (b) Write down detail on multiple extraction technique. | 05 |
| | (c) Write a short note on factors affecting stability of complex. | 05 |
| Q.6 | (a) Write a note on: Diazotization nitrite titration. | 06 |
| | (b) Discuss in detail about Volhard method. | 05 |
| | (c) Write a note on Karl-Fischer titration. | 05 |
| Q.7 | (a) Define redox titration. Write a note on potassium permanganate titration. | 06 |
| | (b) Write explanatory note on: Continuous extraction. | 05 |
| | (c) Describe sampling techniques. | 05 |
