

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. - SEMESTER-1 • EXAMINATION – SUMMER -2018**

**Subject Code: 2210003**

**Date: 05/05/2018**

**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.

|             |                                                                           |           |
|-------------|---------------------------------------------------------------------------|-----------|
| <b>Q.1</b>  | (a) Write a note on Law of mass action in detail.                         | <b>06</b> |
|             | (b) What is hydrolysis? Explain Henderson-Hasselbach equation in detail.  | <b>05</b> |
|             | (c) Write note on acid-base indicators.                                   | <b>05</b> |
| <b>Q.2</b>  | (a) Describe a note on theory of redox titrations.                        | <b>06</b> |
|             | (b) Explain a note on Vollhard method.                                    | <b>05</b> |
|             | (c) Write note on redox indicators.                                       | <b>05</b> |
| <b>Q.3</b>  | (a) Describe a note on gravimetric analysis.                              | <b>06</b> |
|             | (b) Explain a note on Iodometry titration.                                | <b>05</b> |
|             | (c) Write a note on diazotization titration.                              | <b>05</b> |
| <b>Q.4</b>  | (a) Define validation. Enlist validation parameters and explain any two.  | <b>06</b> |
|             | (b) Write a note on sampling techniques.                                  | <b>05</b> |
|             | (c) Define error, classify error and how will you minimize error.         | <b>05</b> |
| <b>Q.5</b>  | (a) Write note on Mohrs method.                                           | <b>06</b> |
|             | (b) Describe in detail about Karlfisher titrations.                       | <b>05</b> |
|             | (c) Give brief note on Kjeldahl method.                                   | <b>05</b> |
| <b>Q. 6</b> | (a) Write short note on $p^M$ Indicator.                                  | <b>06</b> |
|             | (b) Give note on masking and demasking agent in complexometric titration. | <b>05</b> |
|             | (c) Write a note on different types on complexometric titrations.         | <b>05</b> |
| <b>Q.7</b>  | (a) Write a note on Fajans method.                                        | <b>06</b> |
|             | (b) Discuss differentiating solvents and leveling solvents.               | <b>05</b> |
|             | (c) Give detail note on non aqueous titration.                            | <b>05</b> |

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