

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BPHARM – SEMESTER II • EXAMINATION – SUMMER • 2014

Subject code: 2220003

Date: 28-05-2014

Subject Name: Pharmaceutical Analysis-II

Time: 02:30 pm - 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 Validation and describe the validation of Instrumental Analytical methods. | 06 |
| | (b) | Explain Plate and Rate theory of Chromatographic separation. | 05 |
| | (c) | Explain in detail about types of Paper chromatography. Describe applications of Paper chromatography. | 05 |
| Q.2 | (a) | Explain Kohlrausch law. Write a note on factors affecting conductance. | 06 |
| | (b) | What is Electroanalytical methods? Classify Electroanalytical methods of analysis. | 05 |
| | (c) | Justify the followings:
i. Concentration of a racemic mixture can not be found out by Polarimeter.
ii. Small and uniform particle size stationary phase is used in Column chromatography | 05 |
| Q.3 | (a) | Write a note on Dropping mercury electrode. | 06 |
| | (b) | Describe the factors affecting Diffusion current. | 05 |
| | (c) | Discuss Biamperometric titration in detail. | 05 |
| Q.4 | (a) | Explain the principle and working of Glass electrode. Write the limitations of use of Glass electrode. | 06 |
| | (b) | Give difference between:
i. Stationary phase and Mobile phase
ii. Indicator electrode and Reference electrode | 05 |
| | (c) | Draw a neat and labelled diagram of Polarimeter. Describe the applications of Polarimetry. | 05 |
| Q.5 | (a) | Write detail account on DSC. | 06 |
| | (b) | Discuss in detail principle and applications of Thermo gravimetric analysis. | 05 |
| | (c) | Write note on Continuous extraction. | 05 |
| Q. 6 | (a) | Describe in detail the Oxygen combustion flask method. | 06 |
| | (b) | Define following terms:
i. Migration current ii. Equivalent conductance iii. Band Broadening
iv. Signal to noise ratio v. Capacity factor | 05 |
| | (c) | Define: Specific resistance and give a note on Conductivity cell. | 05 |
| Q.7 | (a) | What are the Retention mechanisms involved in chromatography? Explain any two mechanisms in detail. | 06 |
| | (b) | Write an explanatory note on Pulse polarography. | 05 |
| | (c) | Write note on Gasometric method. | 05 |
