

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.**

- 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: **05**
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
- 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: **05**
i. Stationary phase and Mobile phase
ii. Indicator electrode and Reference electrode
(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: **05**
i. Migration current ii. Equivalent conductance iii. Band Broadening
iv. Signal to noise ratio v. Capacity factor
(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**
