

GUJARAT TECHNOLOGICAL UNIVERSITY**B. Pharm. – SEMESTER II • EXAMINATION – WINTER 2015****Subject Code: 2220003****Date: 10/12/2015****Subject Name: Pharmaceutical Analysis-II****Time: 2.30 pm to 5.30 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) Define validation. Enlist parameters of analytical method validation and explain the source of noise in instrumental analysis. **06**
- (b) Discuss the advantages, disadvantages and limitation of instrumental method of analysis. **05**
- (c) Explain the terms: **05**
i. Signal ii. Elution iii. Raffinate iv Accuracy v. Molar conductivity
- Q.2** (a) Define and classify chromatography. Explain the plate theory of chromatographic separation. **06**
- (b) Write a note on column chromatography. **05**
- (c) Justify the followings: **05**
i. Zinc silicate is used in the preparation of silica gel GF
ii. Assay of dextrose injection is done by polarimetry.
- Q.3** (a) Discuss the principle, methodology and applications of TLC. **06**
- (b) Discuss the different development techniques of paper chromatography **05**
- (c) Describe the principle and application of polarimetry. **05**
- Q.4** (a) What is emf. Classify electrode and what are the ideal characteristics of indicator electrode. **06**
- (b) Discuss the principle of pH metry **05**
- (c) Describe the construction, reaction, advantages and disadvantages of standard hydrogen electrode. **05**
- Q.5** (a) Describe the principle of polarography. **06**
- (b) Derive ilkovic equation. **05**
- (c) Describe the oxygen combustion flask method. **05**
- Q. 6** (a) Define conductance and Explain kohlrausch law. **06**
- (b) What is DSC? Write the application of DSC **05**
- (c) Discuss half wave potential and its applications. **05**
- Q.7** (a) What is the difference between biamperometric and amperometric titrations? **06**
Discuss the advantages and applications of amperometric titration.
- (b) Write a note on differential thermal analysis **05**
- (c) Write a note on single extraction technique **05**
