

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm. - SEMESTER- II • EXAMINATION – WINTER -2018

Subject Code: 2220003

Date: 11/12/2018

Subject Name: Pharmaceutical Analysis-II

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.

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|-------------|---|-----------|
| Q.1 | (a) Explain the principle, application and types of paper chromatography. | 06 |
| | (b) Write a short note on Thin Layer chromatography. | 05 |
| | (c) Briefly explain Retention mechanisms involved in chromatography. | 05 |
| Q.2 | (a) Comment on the following statements:
i) Potassium chloride is preferred in salt bridge.
ii) Conductance of HCl in non-polar solvent is higher than conductance of HCl in polar solvent.
iii) Separation efficiency is independent of number of plates. | 06 |
| | (b) Write a detailed note on Conductometric titrations. | 05 |
| | (c) Describe factor affecting conductance. | 05 |
| Q.3 | (a) What is emf. Classify electrode and what are the ideal characteristics of indicator electrode. | 06 |
| | (b) Discuss the applications of potentiometry. | 05 |
| | (c) Define Reference electrode. Enlist the types of it and write note on standard calomel. | 05 |
| Q.4 | (a) Describe principle, working and applications of Polarimetry. | 06 |
| | (b) Write a short note on Biamperometric titration. | 05 |
| | (c) Give difference between optically active and optically inactive compound. | 05 |
| Q.5 | (a) Describe instrumentation of TGA. | 06 |
| | (b) Discuss the advantages, disadvantages and limitation of instrumental method of analysis. | 05 |
| | (c) Explain the application of DSC in detail. | 05 |
| Q. 6 | (a) Define validation. Enlist parameters of analytical method validation and explain the source of noise in instrumental analysis. | 06 |
| | (b) Describe multiple extraction technique. How pH affect extractability of the drugs. | 05 |
| | (c) Discuss the theory of extraction. | 05 |
| Q.7 | (a) Write note on NPP and DPP. | 06 |
| | (b) What is stripping voltammetry? Explain in detail any two techniques. | 05 |
| | (c) Describe the oxygen combustion flask method. | 05 |
