

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

Subject Code:240004

Date: 18/05/2018

Subject Name: Pharmaceutical Analysis-II

Time: 10.30 AM -01.30 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) Write down classification of instrumental methods of analysis with its advantages and limitations. | 06 |
| | (b) Discuss signal to noise ratio. Enlist different validation parameters | 05 |
| | (c) Explain the following.
1. Kohlrausch's law 2. Retention time 3. Racemic mixture
4. Diffusion current 5. Validation | 05 |
| Q.2 | (a) What is chromatography? Discuss theories of chromatography. | 06 |
| | (b) Explain different development techniques in paper chromatography. | 05 |
| | (c) Discuss factors affecting conductance. | 05 |
| Q.3 | (a) Discuss ideal characteristic of reference electrode. Describe any one in detail. | 06 |
| | (b) Explain different types of conductometric titrations. | 05 |
| | (c) Write a short note on TLC. | 05 |
| Q.4 | (a) Enlist different indicator electrodes. Describe glass electrode in detail. | 06 |
| | (b) Discuss stripping voltametry with any two stripping techniques. | 05 |
| | (c) Write down applications of potentiometry. | 05 |
| Q.5 | (a) Explain current -voltage curve in detail. | 06 |
| | (b) Write a brief note on amperometric titrations. | 05 |
| | (c) Describe dropping mercury electrode at length. | 05 |
| Q. 6 | (a) Discuss factors affecting TG curve. | 06 |
| | (b) Explain the following.
1. Optical activity 2. Dead stop end point method | 05 |
| | (c) Write in detail about principle and applications of DSC | 05 |
| Q.7 | (a) What is zone broadening? Explain the sources of zone broadening. | 06 |
| | (b) How will you improve column efficiency? Explain in detail. | 05 |
| | (c) What is specific conductance. Write a short note on conductivity cell. | 05 |
