

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-6 • EXAMINATION – SUMMER -2018

Subject Code: 2260003

Date: 03/05/2018

Subject Name: Pharmaceutical Analysis IV

Time: 10:30 AM TO 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) | Discuss the instrumentation of Gas chromatography. Add a special note on detectors used in gas chromatography. | 06 |
| | (b) | What is the application of radio nuclides. | 05 |
| | (c) | Write a note on ion exchange and size exclusion Chromatography. | 05 |
| Q.2 | (a) | Write principle and instrumentation of HPTLC. | 06 |
| | (b) | Describe advantages and limitations of HPTLC. | 05 |
| | (c) | Compare HPLC with HPTLC. | 05 |
| Q.3 | (a) | Explain principal of gas chromatography in detail. | 06 |
| | (b) | Describe application of GC in Pharmacy in detail. | 05 |
| | (c) | Describe different steps of filling patent in detail. | 05 |
| Q.4 | (a) | Explain Classification and Principle of HPLC and Mobile phase, Stationary phases used in HPLC. | 06 |
| | (b) | What is Radio Immuno Assay? Write a brief note on ELISA. | 05 |
| | (c) | Write a brief note on LC-MS. | 05 |
| Q.5 | (a) | Write basic principle and theory of affinity Chromatography and adsorption Chromatography. | 06 |
| | (b) | Comparison of HPLC with GC | 05 |
| | (c) | Explain super critical fluid Chromatography | 05 |
| Q. 6 | (a) | Write detail not on Radio chemical techniques | 06 |
| | (b) | What is GLP? Explain it in detail. | 05 |
| | (c) | Write a note on Raman spectroscopy. | 05 |
| Q.7 | (a) | What is analytical method validation? Describe different validation parameters according to ICH guideline. | 06 |
| | (b) | What are the elements, requirements and interpretation of ISO 9001;2000 | 05 |
| | (c) | Describe application of X-ray crystallography in detail. | 05 |
