

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER -2019

Subject Code: 280004**Date: 14-05-2019****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) Explain Bragg's law. Explain different method for x-ray diffraction study. | 06 |
| | (b) Explain application of x-ray diffraction study. | 05 |
| | (c) Write a short note on GLP. | 05 |
| Q.2 | (a) Write a short note on Raman spectroscopy. | 06 |
| | (b) Differentiate Nephelometer and Turbidometer. Explain Nephelometer. | 05 |
| | (c) Write a short note on ISO. | 05 |
| Q.3 | (a) Explain theories of Chromatography. | 06 |
| | (b) Explain instrumentation and application of HPLC. | 05 |
| | (c) Write a note on steps involved in patent filing. | 05 |
| Q.4 | (a) Explain Affinity Chromatography in detail. | 06 |
| | (b) Write a note on Size Exclusion Chromatography | 05 |
| | (c) Explain different types of resins in Ion-Exchange Chromatography. Explain instrumentation and applications ion exchange chromatography. | 05 |
| Q.5 | (a) Explain different types of RIA in detail. | 06 |
| | (b) Write short note on HPTLC. | 05 |
| | (c) Discuss various parameters of analytical method validation. | 05 |
| Q. 6 | (a) Explain principle and application of Gas chromatography. | 06 |
| | (b) Explain different detectors used in Gas chromatography. | 05 |
| | (c) Differentiate HPLC and GC. | 05 |
| Q.7 | (a) Write a short note on supercritical fluid chromatography. | 06 |
| | (b) Give a brief note on GC-MS. | 05 |
| | (c) Write a short note on ELISA. | 05 |
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