

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm. - SEMESTER-VI • EXAMINATION – SUMMER-2017

Subject Code: 2260003

Date: 03/05/2017

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 generation of X-rays and explain Bragg's law. | 06 |
| | (b) Discuss instrumentation and applications of X-ray diffraction. | 05 |
| | (c) Write a short note on "Raman Spectroscopy." | 05 |
| Q.2 | (a) Explain briefly the following terms
(i) GC-MS
(ii) LC-MS
(iii) LC-MS/MS | 06 |
| | (b) Explain in detail "The applications of Radio Nuclides." | 05 |
| | (c) Explain the Radioactive Decay and the various units of Radioactive Decay. | 05 |
| Q.3 | (a) Explain various detectors used in HPLC. | 06 |
| | (b) Explain Principle and applications of HPLC. | 05 |
| | (c) Describe the different pumps used in HPLC. | 05 |
| Q.4 | (a) Write a short note on GLP. | 06 |
| | (b) Explain in detail about GATT & TRIPS. | 05 |
| | (c) Write an informative note on ISO. | 05 |
| Q.5 | (a) Explain instrumentation and applications of HPTLC. | 06 |
| | (b) Write a short note on "ELISA." | 05 |
| | (c) Define and explain Patent. Discuss the various steps involved in patent filling. | 05 |
| Q. 6 | (a) Discuss the principle and applications of Gas Chromatography. | 06 |
| | (b) Write a short note on "The Detectors used in GC." | 05 |
| | (c) Discuss Derivatizations in GC. | 05 |
| Q.7 | (a) Discuss various parameters used for Analytical Method Validation as per ICH guidelines. | 06 |
| | (b) Explain briefly
(i) Nephelometry
(ii) Turbidimetry | 05 |
| | (c) Write a short note on
(i) Ion Exchange Chromatography
(ii) Affinity Chromatography | 05 |
