

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-8 • EXAMINATION – SUMMER -2018

Subject Code: 280004

Date: 04/05/2018

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) | Define Validation? Enlist the analytical method validation parameter. Write in detail about any two validation parameters as per ICH guideline. | 06 |
| | (b) | Give brief note on GATT and TRIPS. | 05 |
| | (c) | Write short note on Good Laboratory Practice (GLP). | 05 |
| Q.2 | (a) | How X-rays radiations are generated? Describe applications of X-ray diffraction. | 06 |
| | (b) | Explain the principle and applications of Nephelometry | 05 |
| | (c) | Define Bragg's law and explain it in detail. | 05 |
| Q.3 | (a) | Explain the principle, instrumentation and applications of super critical fluid Chromatography. | 06 |
| | (b) | Discuss detectors used in HPLC. | 05 |
| | (c) | Draw the instrumentation of HPLC and discuss in detail. | 05 |
| Q.4 | (a) | Draw the instrumentation of GC-MS and discuss in brief about GC-MS. | 06 |
| | (b) | Enlist various detectors used in Gas chromatography. Explain FID in detail. | 05 |
| | (c) | Explain; Guard columns, C ₁₈ column, WCOT and PLOT? | 05 |
| Q.5 | (a) | Describe principle, advantage, disadvantage and applications of HPTLC | 06 |
| | (b) | What is basic principle of partition chromatography? Write brief note on it. | 05 |
| | (c) | Write a short note ion-exchange chromatography. | 05 |
| Q. 6 | (a) | Discuss basic principle of Raman spectroscopy in detail. Write applications of it. | 06 |
| | (b) | What is IPR? What are basic criteria for patentability? Explain it. | 05 |
| | (c) | Write comparison of HPLC vs GC. | 05 |
| Q.7 | (a) | What are the different instruments used for measurement of radioactivity? Give a brief account of them. | 06 |
| | (b) | Describe liquid scintillation system for radionuclide. Write applications of Radio nuclides. | 05 |
| | (c) | Give a brief account on ELISA technique. | 05 |
