

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# GUJARAT TECHNOLOGICAL UNIVERSITY

## B. Pharm - SEMESTER-VI -EXAMINATION – SUMMER-2022

Subject Code: 2260003

Date:07/06/2022

Subject Name: Pharmaceutical Analysis-IV

Time: 10:30am to 01:30pm

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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|-------------|-----|---|-----------|
| <b>Q.1</b>  | (a) | Discuss the generation of X-rays and explain Bragg's law.   | <b>06</b> |
|             | (b) | Give Principle of Gas Chromatography.   | <b>05</b> |
|             | (c) | Write a brief note on turbidimetry.   | <b>05</b> |
| <b>Q.2</b>  | (a) | Explain various detectors used in HPLC.   | <b>06</b> |
|             | (b) | What is Nuclear Chemistry? Write a note on Neutron Activation Analysis.                               | <b>05</b> |
|             | (c) | Explain methods use for measurement of radioactivity.   | <b>05</b> |
| <b>Q.3</b>  | (a) | Write a short note on GLP.  | <b>06</b> |
|             | (b) | Write a note on ISO 9001:2000.  | <b>05</b> |
|             | (c) | Write a Note on Applications of X ray diffraction spectroscopy.                                       | <b>05</b> |
| <b>Q.4</b>  | (a) | Draw Schematic diagram of HPTLC. Give its applications  | <b>06</b> |
|             | (b) | Give Principle and Applications of ion-exchange Chromatography.                                       | <b>05</b> |
|             | (c) | Write a note on Isotope dilution analysis.  | <b>05</b> |
| <b>Q.5</b>  | (a) | Give brief introduction of LC-MS and LC-MS/MS.  | <b>06</b> |
|             | (b) | Explain working of PID and ECD.   | <b>05</b> |
|             | (c) | Describe derivatization in GC.  | <b>05</b> |
| <b>Q. 6</b> | (a) | Discuss various parameters used for Analytical Method Validation as per ICH guidelines.               | <b>06</b> |
|             | (b) | Write a note on Supercritical Fluid Chromatography.   | <b>05</b> |
|             | (c) | Write a note on Radio Immuno Assay (RIA).   | <b>05</b> |
| <b>Q.7</b>  | (a) | Explain following terms.<br>1. Retention time 2. Striping 3. GSC 4. Tailing 5. Radioactivity 6. TRIPS | <b>06</b> |
|             | (b) | Write a note on Raman spectroscopy  | <b>05</b> |
|             | (c) | Write an informative note on ISO.   | <b>05</b> |

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