

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 6 EXAMINATION – SUMMER -2020

Subject Code: 2260003**Date: 28-10-2020****Subject Name: Pharmaceutical Analysis IV****Time: 10:30 AM TO 1:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain principle, instrumentation and application of HPLC. **06**
(b) Write in detail on detectors of HPLC. **05**
(c) Differentiate between: i) HPLC & HPTLC, ii) HPLC & GC **05**
- Q.2** (a) Write note on LC-MS. **06**
(b) Discuss various parameters of analytical method validation. **05**
(c) Write a short note on supercritical fluid chromatography. **05**
- Q.3** (a) Explain principle, advantage, limitation and application of HPTLC. **06**
(b) Explain following terms: (Any five) **05**
(a) Retention time (b) Retention Volume (c) Resolution (d) Dead time (e) HETP (f) Capacity factor (G) Asymmetric factor
(c) Write a note on Size exclusion chromatography. **05**
- Q.4** (a) Discuss about GLP **06**
(b) What is Nuclear Chemistry? Write a note on Neutron Activation Analysis. **05**
(c) Differentiate Raman spectroscopy and IR spectroscopy. Write a note on Raman spectroscopy. **05**
- Q.5** (a) Enlist the detectors used in GC and discuss construction, working, advantages and disadvantages of catharometer & FID. **06**
(b) Describe derivatization in GC. **05**
(c) Write a note on temperature programming in GC. **05**
- Q. 6** (a) Write a brief note on nephelometry. **06**
(b) Write a note on GATT & TRIPS. **05**
(c) Explain the steps involved in filing patent. **05**
- Q.7** (a) Write a note on ELISA. **06**
(b) Write short note on RIA. **05**
(c) Write a note on ISO9001:2000. **05**
