Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. - SEMESTER - II • EXAMINATION - WINTER • 2015 Subject Code: 2920107 Date: 07-12-2015 **Subject Name: Pharmaceutical Analysis - II** Time: 10:30 am - 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. **Q.1** (a) Write about principle and applications of LC-MS in drug analysis. 06 Give brief account on specific sample preparation techniques. **(b)** 05 Write in brief on UV and fluorescence analysis of powdered drugs. 05 (c) **Q.2** (a) Give detail about the ICH guideline for determination of related substance and 06 impurity. Discuss various extraction techniques for phytohemical analysis. **(b)** 05 Give principle and instrumentation of super critical fluid chromatography. 05 (c) 0.3 Explain the principle and application of counter current chromatography. **06** (a) Write about the application of tryptic mapping and isoelectric focusing. 05 **(b)** (c) Write about WHO guidelines for the quality control of raw materials used in 05 herbal formulations. 0.4 Write a short note on application of GC- MS in drug analysis. 06 (a) Explain the role of gel electrophoresis in protein and amino acids separation. **(b)** 05 How will you analyze Glipizide Tablet as per IP. (c) 05

What are the effects of impurities and related substance on drug stability and

Give procedure and principle involved in analysis of any one antihypertensive

Explain the principle and application of size exclusion chromatography.

Discuss about the use of chromatographic techniques in identification and

06

05

05

06

05

05

06

05

05

Write a note on Amino Acid Sequence analysis.

Explain the terms (i) ash values (ii) extractive values.

Discuss the methods for Solid State Analysis at bulk level.

Write a brief note on ion exchange amino acid analysis.

Write a short note on automation in pharmaceutical analysis.

Q.5

Q. 6

Q.7

(a)

(b)

(c)

(a)

(b)

(c)

(a)

(c)

therapeutic effects?

drug as per IP.

extraction of plant constituents.