

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2014

Subject Code: 910107

Date: 07-01-2015

Subject Name: Pharmaceutical Analysis - I

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) | Describe in detail calibration and validation of HPLC. | 06 |
| | (b) | Write a note on calibration and validation of UV- Visible spectrophotometer. | 05 |
| | (c) | How will you validate and calibrate IR spectrophotometer? | 05 |
| Q.2 | (a) | Describe application of Ion selective electrode in drug analysis. | 06 |
| | (b) | Discuss applications of instrumental methods of analysis in the development of drugs. | 05 |
| | (c) | Discuss analytical method validation. Enlist different parameters and discuss any two. | 05 |
| Q.3 | (a) | Write note on methods used for estimation of vitamin E. | 06 |
| | (b) | Describe principle involved in the analysis of progesterone in formulations. | 05 |
| | (c) | Write a note on estimation of alkaloids of cinchona. | 05 |
| Q.4 | (a) | Describe principles involved in estimation of glycosides digitoxin and digoxin. | 06 |
| | (b) | Discuss method involved in the elemental estimation of sodium and potassium. | 05 |
| | (c) | Write principles involved in elemental analysis of sulphur and chlorine. | 05 |
| Q.5 | (a) | Give principles for quantitative determination of amine group with example. | 06 |
| | (b) | Describe barbiturates in short and discuss techniques used in estimation of them. | 05 |
| | (c) | Write methods used in estimation of aldehydes and amines. | 05 |
| Q. 6 | (a) | Describe principles and procedure involved in the use of Folin-Ciocalteu reagent in pharmaceutical analysis. | 06 |
| | (b) | Discuss the use of 1,2-Naptho Quinone 4- Sulphonate in pharmaceutical analysis with appropriate examples. | 05 |
| | (c) | How can you estimate the drug using 3-methyl-2- benzothiazoline hydrazone (MBTH)? | 05 |
| Q.7 | (a) | Enumerate methods used for analysis of excipients in solid states. | 06 |
| | (b) | Write a note on particle size analysis. | 05 |
| | (c) | Write a note on principle involved in estimation of sulpha drugs. | 05 |
