

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Pharm - SEMESTER-I • EXAMINATION – WINTER-2016

Subject Code: 910107**Date: 02/01/2017****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.

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| Q.1 | (a) | Write the applications of instrumental methods in the development of medicines. | 06 |
| | (b) | Discuss in detail validation of HPLC. | 05 |
| | (c) | Write a note on validation of IR spectrophotometer. | 05 |
| Q.2 | (a) | What is analytical method validation? Enlist different parameters and discuss any two in detail. | 06 |
| | (b) | Discuss the methods involved in elemental analysis of chlorine, bromine and iodine. | 05 |
| | (c) | Write down a note on principle and procedures involved in quantitative determination of hydroxyl groups. | 05 |
| Q.3 | (a) | Discuss validation of UV visible spectrophotometer. | 06 |
| | (b) | Write instrumentation and applications of Ion Selective electrodes. | 05 |
| | (c) | Write principles involved in estimation of Vitamin A and Vitamin E. | 05 |
| Q.4 | (a) | Write note on methods used for estimation of vitamin E. | 06 |
| | (b) | Write a note on estimation of alkaloids of cinchona. | 05 |
| | (c) | Write note on validation of GC. | 05 |
| Q.5 | (a) | Write a detail note on particle size analysis. | 06 |
| | (b) | Enumerate the various methods for determination of amine group. Discuss any one method. | 05 |
| | (c) | Write a note on the principle involved in the elemental analysis of Sodium. | 05 |
| Q. 6 | (a) | Discuss about quantitative determination of aldehyde and ketone groups. | 06 |
| | (b) | Explain the working principle and use of X-ray diffraction techniques in drug analysis. | 05 |
| | (c) | Give methods of estimation for Vitamin A. | 05 |
| Q.7 | (a) | Discuss the principle involved in the analysis of glucocorticoids in pharmaceutical drug formulations. | 06 |
| | (b) | Write a note on methods for the estimation of glycosides of digitoxin. | 05 |
| | (c) | Discuss the methods involved in elemental analysis of chlorine, bromine and iodine. | 05 |
