Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm - SEMESTER I— • EXAMINATION — SUMMER-2015

Subject Code: 910107 Date: 21-05-2015 Subject Name: Pharmaceutical Analysis – I Time: 02:30 pm to 05:30 pm **Total Marks: 80 Instructions:** 1. Attempt any five questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 0.1 Discuss in detail various methods used for analysis of erythromycin and 06 (a) penicillin with principles Describe the principle and procedures involved in use of 05 **(b)** p-dimethylaminobenzaldehyde in pharmaceutical analysis. Explain in detail instrumentation of ion selective electrodes with schematic 05 (c) diagram. 0.2 Explain principles and procedures involved in methods of analysis for dosage (a) 06 forms containing xanthine and its derivatives. Write a note on methods for the estimation of glycosides of strophanthin. 05 **(b)** Discuss analytical procedure used for the determination of alkaloids of ergot. (c) 05 **Q.3** (a) Explain in detail methods of estimation of N₁-naphthyl ethylene diamine and 06 streptomycin. **(b)** Discuss the principles involved in the use of 2, 6-Dichloro quinone chlorimide 05 Describe the methods useful for estimation of Aldehyde and ketone. 05 (c) **Q.4** Explain in detail to calibrate and validate the following instruments (a) 06 i) UV-Visible Spectrophotometer ii) HPTLC Write down the principles involved in the use of drug analysis by 3-methyl-2-**(b)** 05 benzothiazoline hydrazone reagent. What do you mean by analytical method validation and discuss any two 05 validation parameters in detail. **Q.5** Give the applications of instrumental methods of analysis in the development (a) 06 of medicines. Write a short note on principles and procedures involved in physicochemical 05 **(b)** methods of analysis for dosage forms containing sulphonamides. Discuss the principle and procedure involves for the quantitative estimation of 05 hydroxyl functional group. **O.** 6 (a) Discuss the various procedures for elemental analysis of calcium and iodine. 06 **(b)** Explain the instrumental methods used for particle size determination. 05 Explain the assay principle and procedure used for analysis of androgens. 05 (c) 0.7 Explain the methods used for analysis of cinchona alkaloids. 06 (a)

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Enumerate X-ray diffraction methods and discuss any one in detail.

Give the estimation procedure for vitamins like vitamin A and B_{12} ?

(b)

(c)