

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.

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|-------------|------------|--|-----------|
| Q.1 | (a) | Discuss in detail various methods used for analysis of erythromycin and penicillin with principles | 06 |
| | (b) | Describe the principle and procedures involved in use of p-dimethylaminobenzaldehyde in pharmaceutical analysis. | 05 |
| | (c) | Explain in detail instrumentation of ion selective electrodes with schematic diagram. | 05 |
| Q.2 | (a) | Explain principles and procedures involved in methods of analysis for dosage forms containing xanthine and its derivatives. | 06 |
| | (b) | Write a note on methods for the estimation of glycosides of strophanthin. | 05 |
| | (c) | Discuss analytical procedure used for the determination of alkaloids of ergot. | 05 |
| Q.3 | (a) | Explain in detail methods of estimation of N ₁ -naphthyl ethylene diamine and streptomycin. | 06 |
| | (b) | Discuss the principles involved in the use of 2, 6-Dichloro quinone chlorimide reagents. | 05 |
| | (c) | Describe the methods useful for estimation of Aldehyde and ketone. | 05 |
| Q.4 | (a) | Explain in detail to calibrate and validate the following instruments
i) UV-Visible Spectrophotometer ii) HPTLC | 06 |
| | (b) | Write down the principles involved in the use of drug analysis by 3-methyl-2-benzothiazoline hydrazone reagent. | 05 |
| | (c) | What do you mean by analytical method validation and discuss any two validation parameters in detail. | 05 |
| Q.5 | (a) | Give the applications of instrumental methods of analysis in the development of medicines. | 06 |
| | (b) | Write a short note on principles and procedures involved in physicochemical methods of analysis for dosage forms containing sulphonamides. | 05 |
| | (c) | Discuss the principle and procedure involves for the quantitative estimation of hydroxyl functional group. | 05 |
| Q. 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 |
| | (c) | Explain the assay principle and procedure used for analysis of androgens. | 05 |
| Q.7 | (a) | Explain the methods used for analysis of cinchona alkaloids. | 06 |
| | (b) | Enumerate X-ray diffraction methods and discuss any one in detail. | 05 |
| | (c) | Give the estimation procedure for vitamins like vitamin A and B ₁₂ ? | 05 |
