



# Rajiv Gandhi University of Health Sciences, Karnataka

First Year M. Pharm Degree Examination – Oct/Nov 2014

**Time: Three Hours**

**Max. Marks: 100 Marks**

## INSTRUMENTAL METHOD OF ANALYSIS

(Revised Scheme 4)

**Q.P. CODE: 9359**

Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary

### LONG ESSAYS (Answer any Two)

**2 x 20 = 40 Marks**

1. Explain detail principles and procedures involved in the methods of analysis for following dosage forms.  
a) Anti-tubercular drugs b) Local anaesthetics c) Sulphonamides
2. Discuss principle and procedures involved in the quantitative determination of Carbonyl group, carboxylic acid and amines.
3. a) Explain methods of particle size analysis and X-ray powder diffraction.  
b) Discuss theory and applications of Raman Spectroscopy and Inductively Coupled Plasma-Optical Emission Spectrometers (ICP-OES).

### SHORT ESSAYS (Answer any FIVE)

**5 x 10 = 50 Marks**

4. Describe principle and procedure involved in the use of Ninhydrine & FC reagents in pharmaceutical analysis.
5. Write various quantitative methods of analysis of diuretics and analgesics & antipyretics.
6. Write principle and procedures involved in the analysis of steroids and antibiotics.
7. Write note on the following a) Turbidimetry b) Quality control of Radiopharmaceuticals.
8. Describe application of instrumental methods in product characterization for product development.
9. Write a note on methods of analysis for sulphonamides.

### SHORT NOTES

**2 x 5 = 10 Marks**

10. Discuss application of SEM in particle size analysis.
11. Write note on ICH guidelines in method validation.

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