

**Rajiv Gandhi University of Health Sciences**  
**First Year M.Pharm Degree Examination – October 2010**

[Time: 3 Hours]

[Max. Marks: 100]

**INSTRUMENTAL METHODS OF ANALYSIS**

**PAPER III**

**(Revised Scheme 2)**

**Q.P. CODE : 9223**

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

**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. a) What is the important of particle size analysis? Explain how X-ray diffraction technique is useful for particle size determination  
b) Giving the principle of nephelometry, describe the instrument used for this technique
2. Describe the instrument methods available for the analysis of some member drugs belonging to sulphonamide and barbiturate groups
3. Give the principles involved in the use of the following reagents in pharmaceutical analysis with at least one example for each reagent  
a) Bratton Marshall reagent (b) 2,6 – Dichloroquinone chlorimide (c) MBTH

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Write a note on development of UV- visible spectrophotometric method for analysis of drugs
5. How do you determine vitamin B<sub>1</sub> and B<sub>2</sub> by fluorimetry
6. Name some diuretic drugs. Give the methods of estimation of any two of them
7. Give some qualitative tests for identification of alkaloids. Write the method of assay of one tropane alkaloid
8. What is the principle of flame photometry? Write down its applications
9. Giving an example, explain the use of Folin – Ciocalteu reagent in drug analysis

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Explain how a drugs containing an aldehyde group can be estimated
11. What is the principle involved in assay of reserpine injection IP 1996

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