

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year B.Pharm Degree Examination – Mar 2013

Time: Three Hours

Max. Marks: 80 Marks

INSTRUMENTAL & BIO-MEDICAL ANALYSIS (Revised Scheme - 2)

Q.P. CODE: 1967

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

LONG ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. Describe the instrumentation and theory of fluorimetry.
2. Write a neat diagram of HPLC instrument. What are its advantages over TLC?
3. Classify conductometric titrations. Explain the respective curves with examples.

SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. Classify electromagnetic radiations with their applications.
5. Describe a polarimeter.
6. List the sources of quality variation. How are, these controlled?
7. Discuss the salient features of a typical polarogram and Ilkovic equation.
8. Classify chromatographic separation techniques with suitable examples.
9. Explain one reference and one indicator electrode each.
10. What is the principle of estimation of dextrose and thiamine?
11. Describe the instrument used for paper electrophoresis.
12. Give the principle and uses of mass spectrometry.
13. Write the differences between nephelometry and turbidometry.

SHORT ANSWERS

10 x 2 = 20 Marks

14. Differentiate between adsorption and partition chromatography technique.
15. Define chemical shift.
16. What is the importance of Bragg's law?
17. Write the use and applications of Ilkovic equation.
18. How do you estimate ferrous ion colorimetrically?
19. Mention the use of Ion exchange resin.
20. What is bathochromic shift?
21. Write the use of Barrier layer cell
22. Define molar conductivity of an electrolyte.
23. List the detectors of gas chromatography.
