

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year B.Pharm Degree Examination – Aug / Sep 2011

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. Explain the theory of IR spectroscopy. Enumerate various sources of IR radiation, explain any one in detail.
2. Derive an expression for half wave potential. What is its application in polarographic analysis?
3. What is electrophoresis? Describe the paper electrophoresis and its application.

SHORT ESSAYS (Answer any Eight)**8 x 5 = 40 Marks**

4. What is the relationship between Absorptivity, Specific extinction coefficient and molar absorptivity?
5. Write a note on counter current distribution chromatography.
6. Write the applications of X-ray diffraction.
7. Write a note on total quality management.
8. How thiamine and riboflavine can be assayed fluorimetrically?
9. Write a note on conductometric titrations.
10. Write the construction and working of glass electrode.
11. Describe stationary phases used in gas liquid chromatography and HPLC.
12. How end points are determined in potentiometric titrations?
13. Explain the working of photomultiplier tube.

SHORT ANSWERS**10 x 2 = 20 Marks**

14. Name the burners in flame photometry.
15. Name the four methods of validation methods in quality assurance.
16. Define blue shift and red shift.
17. What are the advantages of double beam spectrometer over single beam instrument?
18. Enumerate the various sources of UV radiation.
19. What are the factors that affect the resolution of a chromatographic method?
20. How do you recover components separated on a TLC plate?
21. Explain the principle of dead stop end point technique.
22. What is quenching? Write on any two of them.
23. Give an application of Nephelometric analysis.
