



# Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – 04-Jan-2020

**Time: Three Hours****Max. Marks: 70 Marks****PHARMACEUTICAL ANALYSIS (RS & RS2)****Q.P. CODE: 2862**

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 in detail the detectors used in IR spectroscopy.
2. Explain the principle involved in fluorimetric estimation with the help of two pharmaceutically important compounds.
3. Describe the construction, working and applications of Standard Hydrogen Electrode.

**SHORT ESSAYS (answer any six)****6 x 5 = 30 Marks**

4. Describe the construction and working of a Gas Chromatography
5. How do you differentiate between fluorescence and phosphorescence? Give the applications of fluorimetry
6. Explain the terms Bathochromic, hypsochromic, hyperchromic shifts
7. Discuss chemical shift and its utilization in NMR spectroscopy
8. Discuss the diffraction patterns of X-ray diffraction
9. Write a note on Development Techniques in column chromatography
10. Explain how do you perform Quantitative analysis in Paper chromatography.
11. Describe the principle and applications of Electrophoresis.

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

12. Define the terms wave length and frequency.
13. Effect of  $P^H$  on the fluorescence of substance.
14. Name any two substances that can be analysed by thermal analysis.
15. Name the types of ions used in mass spectra
16. Explain the method of estimation of riboflavin
17. Give the fuel combination in flame photometry
18. What is self quenching
19. Define Chromatography &  $R_f$  values
20. How is activation of TLC plates done?
21. What is an ion-exchange resin? Give an example of natural resin a) Cation b) Anion

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