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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – Jan 2014

Time: Three Hours Max. Marks: 70 Marks

PHARMACEUTICAL ANALYSIS

Q.P. CODE: 2862

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

LONG ESSAYS 2 x 10 = 20 Marks

- 1. Write the principle, common features and differences in the techniques of Nephelometry and Turbidimetry
- 2. Explain the principle and development techniques, adsorbents, mobile phase and detection methods used in column chromatography
- 3 Describe the instrumentation of IR spectrometry

SHORT ESSAYS 6 x 5 = 30 Marks

- 4. Write different electronic transitions of UV visible spectroscopy
- 5. Explain the modes of vibrations when a molecule interacts with IR radiations
- 6. Name the pumps used in HPLC and explain with a neat diagram
- 7. What are the factors causing deviation from beer's law
- 8. Explain the principle and working of detectors used in GC
- 9. Describe the construction and working of Hydrogen electrode
- 10. Explain the instrumentation of paper electrophoresis
- 11. Write the difference between grating and prism monochromator

SHORT ANSWERS $10 \times 2 = 20 \text{ Marks}$

- 12. Define chromophore and auxochrome with example
- 13. Explain derivatization in gas chromatography
- 14. Why two filters are used in Fluorimetry
- 15. Write a note on layer prewashing in HPTLC
- 16. Define reference electrode and indicator electrode
- 17. What is finger print region? What is its significance
- 18. Write any four limitations of Beer's Law
- 19. Define Bathochromic and Hypsochromic shift
- 20. Explain any two interferences encountered in flame photometry
- 21. List out the sources of quality variation
