

# 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 x 2 = 20 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

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