

# Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – Sep 2012

**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. Derive Beer's and Lambert's law. Write its applications, advantages and limitations of Beer's law
2. Write principles of gas liquid chromatography and draw neat labeled diagram of GC instrumentation and explain the different parts of it
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  - a) Explain the theory and nebulisation of flame photometry
  - b) What are the interferences in flame photometry

### SHORT ESSAYS

**6 x 5 = 30 Marks**

4. What are the factors affecting fluorescence in fluorimetric analysis
5. Write a note on photometric titration
6. Explain different types of ion exchangers
7. How will you select adsorbents and solvents for TLC
8. What is validation? What are the requirements of analytical instrument validation
9. Explain deformation vibration in IR spectroscopy
10. What is the effect of solvent and conjugation in UV spectroscopy
11. Karl Fischer titration

### SHORT ANSWERS

**10 x 2 = 20 Marks**

12. What are indicator electrodes
13. Define molar conductivity and specific conductance
14. Define quality control and quality assurance
15. What are silylating agents
16. Values in paper chromatography
17. Importance of fingerprint region in IR spectroscopy
18. Classify of paper chromatography
19. Applications of atomic emission spectroscopy
20. Define and classify monochromators
21. What are the ideal characters of mobile phase used in HPLC?

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