Rajiv Gandhi University of Health Sciences, Karnataka
III Year Pharm-D Degree Examination NOV 2016

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 (Answer any Two)   **2 x 10 = 20 Marks**

1. Define and derive Beer's Lambert law. Write a note on limitation of this law.

2. Describe the instrumentation and applications of HPLC in detail.

3   Explain a) The theory of conductometry.
    b) Different types of conductometric titrations
    c) Applications of conductometry. (3+5+2 = 10 marks)

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Explain the different sampling techniques used in IR spectroscopy.

5. Explain the construction and working of glass electrode.

6. Explain different ion exchange resins with examples used in ion exchange chromatography.

7. Explain the principle and application of gel filtration.

8. What is fluorescence and phosphorescence? Explain the concept of fluorescence through energy level diagram.

9. Classify the detectors used in gas chromatography and explain flame ionization detector in detail.

10. Explain the nebulisation technique in flame photometry.

11. Describe the various development techniques used in paper chromatography.

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

12. Define Bathochromic shift and hypsochromic shift.

13. Application of Potentiometry.

14. Note on Paper Electrophoresis.

15. List out radiation sources used in IR spectroscopy.

16. Applications of HPTLC

17. List out the various adsorbents used in TLC.

18. Define and classify quenching.

19. What is guard column? Mention its significance.

20. Name two fluorescent indicators.

21. Define validation as per ICH guidelines.

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