Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – 24-Oct-2024

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. a) Define and derive equation for Beer - Lamberts Law
   b) What are the limitations of Beer - Lamberts Law
2. What is liquid chromatography? Describe the instrumentation and application of HPLC.
3. Explain the theory of conductometry, and the types of conductometric titrations. Draw a neat sketch of DME.

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

4. Define partition chromatography and write a note on plate theory.
5. Explain the concept of pre-dervitization and post dervitization techniques in gas chromatography with relevant examples.
6. Write a note on ICH guidelines.
7. Write a note on instrumentation and application of HPTLC.
8. What is the principle in potentiometric titration and how is the end point determined in potentiometric titrations?
9. Explain with a neat diagram any two detectors used in GC.
10. What is flame emission and atomic absorption spectrometry? What are the events involved in estimation of amount of sodium by the above techniques?
11. What are the different sampling techniques for mounting a sample in the form of a solid, thin film, liquid or gas in IR spectrometer?

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

12. Define Bathochromic shift and Hypsochromic shift.
13. Define and explain "Quality Assurance".
14. What is finger print region? Give its importance.
15. Why is DME used? What are the advantages?
16. Write a note on guard column and its significance.
17. What is indicator electrode and reference electrode give examples.
18. Enumerate the application of paper chromatography.
19. What is TLC and write the principle of separation in TLC.
20. What is Rm value? Give its significance.
21. Write a note on frontal analysis.

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