

Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – 31-May-2023

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. Explain the rate theory with the support of Van Deemter equation for enhancing the column efficiency.
2. Explain the various methods of detecting end point by potentiometric titration. Add a note on standardization (titre determination) of KF reagent.
3. Write Jablonski diagram to show the process of luminescence and explain the factors affecting fluorescence and phosphorescence.

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

4. Explain the conductometric titration curves for mixture of a strong acid and a weak acid vs. a strong base or a weak base.
5. Explain the construction and working of standard hydrogen electrode.
6. Add a brief note on validation of equipment.
7. Add a note on sources of quality variation.
8. Discuss principle and application of any two detectors used in GC with diagram.
9. Explain the principle involved and working of gel electrophoresis with advantages and disadvantages.
10. Explain the principle involved in measurement of equilibrium constant by spectroscopy.
11. Write the construction and working of any two UV detectors.

SHORT ANSWERS

10 x 2 = 20 Marks

12. What is validation? Classify.
13. Write the Nernst equation and its importance.
14. Name the indicator electrode and its application.
15. What is the difference between isocratic and gradient elutions in chromatography?
16. Define absorption maximum.
17. Give the role of guard column in HPLC.
18. Mention the different energy levels in organic molecules in order of their energy.
19. Define bathochromic shift.
20. Why the radiation source and detector are not at 180° in fluorimeter?
21. Write the definition and units for wave number and wave length.
