

# Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – May 2018

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 theory of polarography involving Ilkovic equation, dropping mercury electrode, various current produced and its application in pharmacy.
2. Explain the principle involved in fluorimetric estimation with the help of two pharmaceutically important compounds.
3. Write an account of construction and working of glass electrode. Write the applications of Potentiometric titrations.

### SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

4. Describe the construction and working of a Gas Chromatography
5. Discuss the different types of electronic transitions with their significance in UV-Visible spectroscopy
6. Give note on sampling techniques in IR spectroscopy.
7. What is photoluminescence? Explain the phenomenon with the help of energy diagram
8. Discuss the diffraction patterns of X-ray diffraction
9. Write a note on Development Techniques in column chromatography
10. Explain the terms (a) HETP (b) Retention time (c) Retention volume.
11. Write a note on ICH guidelines.

### SHORT ANSWERS

10 x 2 = 20 Marks

12. Define  $R_f$  value. Give its significance.
13. What is finger print region? What is its significance
14. What is molar conductance and equivalent conductance.
15. Explain the method of estimation of riboflavin
16. Give the fuel combination in flame photometry
17. Name the types of ions used in mass spectra.
18. Define Chromatography and its applications.
19. How is activation of TLC plates done?
20. What is an ion-exchange resin? Give an example of natural resin a) Cation b) Anion
21. Give example of carrier gas used in G.L.C.

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