

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year B.Pharm Degree Examination – JAN-2019

Time: Three Hours**Max. Marks: 80 Marks**

INSTRUMENTAL METHODS OF ANALYSIS (OS & RS)

Q.P. CODE: 1876

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. Describe the instrumentation of UV spectroscopy with neat schematic diagram and write the limitation and applications of Beers-Lambert's law.
2. Write the principle and instrumentation of spectrofluorimeter.
3. Explain the principle and instrumentation of flame photometer.

SHORT ESSAYS (Answer any Eight)**8 x 5 = 40 Marks**

4. Explain the types of transitions in UV spectroscopy.
5. Write the applications of IR spectroscopy.
6. Write in detail on gel chromatography.
7. Explain the identification methods involved in the chromatogram.
8. Write the principle and applications of conductometric titrations.
9. Explain the various vibrational modes in IR spectroscopy.
10. Write a note on detectors used in the GC.
11. Write the applications of x-ray crystallography.
12. Write a note on validation of analytical methods.
13. Define quenching. Explain different types of quenching with examples.

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

14. Write the applications of HPLC?
15. What is K-band? Give an example.
16. Classify ion exchange resins.
17. What are the reasons for Hypsochromic shift and Bathochromic shift?
18. What are the ideal characters of mobile phase in GC?
19. Applications of nephlo-turbidimetry.
20. Explain ESR?
21. Classify different type of conductometric titrations.
22. Half wave potential.
23. Brief note on electrophoresis.
