

Rajiv Gandhi University of Health Sciences, Karnataka

IV Year B.Pharm Degree Examination – DEC-2014

Time: Three Hours

Max. Marks: 70 Marks

INSTRUMENTAL & BIOMEDICAL ANALYSIS

(Revised Scheme – 3)

Q.P. CODE: 2617

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. Give the construction and working of a Gas chromatography. write a note on columns used in G.C.
2. Compare and contrast Nephelometry and turbidimetry with reference to principle, instrumentation and applications.
3. Explain the construction and working of any two detectors used in IR Spectrophotometer.

SHORT ESSAYS (Answer any Six)

6 x 5 = 30 Marks

4. What is Quenching? Explain various types of quenching with suitable examples.
5. Describe the methodology employed in column chromatography.
6. Explain the construction and working of a Photomultiplier tube.
7. What are the factors causing deviations from Beer's Law? Explain.
8. Define 'validation'. Explain types of 'process validation'.
9. Explain the conductometric titration curve for a strong acid against a strong base.
10. Explain paper electrophoresis.
11. Describe the preparation of chromatoplates and adsorbents used in TLC.

SHORT ANSWERS

10 x 2 = 20 Marks

12. Define wave length and wave number. Write units.
13. Define reference electrode and indicator electrode. Give examples.
14. What is R_f value?
15. Enumerate the detectors used in HPLC.
16. Explain and expand HETP.
17. Enumerate the various sources of UV radiations.
18. Types of interferences in flame photometry.
19. Buffers used in Paper electrophoresis.
20. Structure of styrene and Divinyl benzene.
21. Isocratic elution & Gradient elution.
