Rajiv Gandhi University of Health Sciences

First Year M. Pharm Degree Examination - JAN-2019

[Time: 3 Hours] [Max. Marks: 100]

Modern Pharmaceutical Analysis

(Revised Scheme 4)

Q.P. CODE: 9336

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer any ten questions.

LONG ESSAY (Answer any TEN) **10 X 10 = 100 Marks**

1. Discuss principle and instrumentation of IR-Spectroscopy.
2. Explain in detail interfacing LC and GC in mass spectrophotometry with their applications.
3. Give an account on spin-spin coupling. Discuss the factors affecting spin-spin coupling and their applications.
4. Explain in detail about the importance of statistical analysis.
5. Explain the principle involved in electron impact, chemical ionization, FAB and MALDI. Write their merit and demerits.
6. What is meant by time domain and frequency domain curves? Write the principle and instrumentation of FT-NMR.
7. Write a note on coupling and decoupling methods and its significance in NMR spectroscopy.
8. Explain factors that affect the migration of ions in electrophoresis. Discuss isoelectric focusing technique in electrophoresis and give its applications.
9. Write the principle of Differential scanning calorimeter. Give their applications and mention factors affecting DSC results.
10. What is Van – Deemter equation? Explain the variables involved in it. Discuss the instrumentation of HPLC with special reference to detectors.
11. What are different types of ions generated in mass spectroscopy? Explain with examples and its significance.
12. a) What are pre-derivitization techniques in GC? Explain with reaction examples.
    b) Write the diagram, working, advantages and disadvantages of any three GC detectors.

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