

Rajiv Gandhi University of Health Sciences, Karnataka
First Semester M. Pharm Degree Examination - 15-Mar-2021

Time: Three Hours

Max. Marks: 75 Marks

Modern Pharmaceutical Analytical Techniques
Q.P. CODE: 5101

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

Answer All The Questions

10 x 7.5 = 75 Marks

1. State Beer and Lambert's Law. Discuss the importance of Woodward's rules in calculating the $\lambda_{\max}$ of organic compounds with suitable examples.
2. Explain the instrumentation and functioning of a NMR with a schematic diagram.
3. Elaborate on selection of mobile phases, efficiency parameters and derivatization techniques in HPLC.
4. Write about FTIR technique and its advantages over conventional IR.
5. Explain theory of fluorescence and factors affecting fluorescence.
6. Explain Mass Fragmentation rules with suitable examples.
7. List and explain about three detectors used in Gas chromatography.
8. Define electrophoresis. Write a note on moving boundary electrophoresis.
9. Define and derive an equation for Bragg's law and brief note on Bravais Lattice.
10. Describe radio-immunological assay and list out the applications of bioluminescence assays.

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