Rajiv Gandhi University of Health Sciences

Second Semester M. Pharm Degree Examination - MAY-2019

[Time: 3 Hours] [Max. Marks: 75]

Advanced Spectral Analysis-II

Q.P. CODE: 5157

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

LONG ESSAY (Answer any Three) **3 X 10 = 30 Marks**

1. Explain the principle and instrumentation of ATR-IR.
2. Outline the theory of NOESY and COSY.
3. Explain the general fragmentation of alkane, alcohol, amine and carbonyl group.
4. Write the principle, instrumentation and applications of GC-MS with special emphasis on interface.

SHORT ESSAY (Answer any Nine) **9 X 5 = 45 Marks**

5. Explain Wood-Ward – Fieser rule for α, β carbonyl compound.
6. How will you identify the following functional groups in an organic compound (-OH, NH_2, C-H, C-N, C=0) by IR-spectroscopy.
7. Explain in detail metastable ion.
8. Give brief account on HECTOR.
9. Brief account on Ion exclusion chromatography.
10. Write the principle involved in DTA.
11. Give a brief account on Radio immuno assay of Insulin.
12. Explain in detail quadrupole analyser.
13. Explain the instrumentation of Raman spectroscopy.
14. Write the difference between TLC and HPTLC.

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