

Roll No.

Y – 3242

M.Sc. (Pharmaceutical Chemistry) (Second Semester) EXAMINATION,

June 2021

Paper – 202

SPECTROANALYTICAL METHODS OF ANALYSIS-II

Time : Three Hours

Maximum Marks : 85

Minimum Pass Marks : 29

Note—Attempt *all* questions.

Unit-I

1. Give a brief account of theory, instrumentation and application of Atomic Absorption spectroscopy. 17

Unit-II

2. Describe theory of infrared spectroscopy and derive the expression for wave number. Explain qualitative application. 17

Unit-III

3. Discuss the role of the following in structure elucidation— 17
- (i) Chemical shift
 - (ii) Spin-spin coupling.

Unit-IV

4. Write short notes on the following— 17
- (i) 3D – NMR experiment.
 - (ii) 2D – NMR spectroscopy.

Unit-V

5. Give a brief account of mass analyser. What is nitrogen rule ? Describe general fragmentation modes. 17

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