

Roll No.

Y – 3134

M.Sc. (Chemistry) Fourth Semester EXAMINATION,

May/June-2021

Paper – 504

APPLICATION OF SPECTROSCOPY (ORGANIC CHEMISTRY)

Time : Three Hours

Maximum Marks : 85

Minimum Pass Marks : 29

Note—Attempt *all* questions.

Unit-I

1. Explain the following— 17
- (a) Effect of conjugation on λ -max.
 - (b) Effect of solvents on electronic transition.

Unit-II

2. Write detailed study of vibrational frequencies of carboxyl compounds. 17

Unit-III

3. Define Chemical shift and give correlation for protons bonded to various types of carbon. 17

Unit-IV

4. Explain chemical shift of ^{13}C NMR, and describe various factors affecting the ^{13}C Chemical shift. 17

Unit-V

5. Explain technique of Mass spectrometer for Ion production and ion analysis. 17

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