

Roll No.

Y – 3141

M.Sc. (Chemistry) Fourth Semester EXAMINATION,

May/June-2021

Paper – MCH-607

PHYSICAL ORGANIC CHEMISTRY

Time : Three Hours

Maximum Marks : 85

Minimum Pass Marks : 29

Note—Attempt *all* questions.

Unit-I

1. Discuss Huckel Molecular Orbital (MO) method as a mean to explain modern theoretical concepts. 17

Unit-II

2. Discuss HMO theory as applied to butadiene molecule. 17

Unit-III

3. Discuss the structural effect on reactivity. 17

Unit-IV

4. What is conformational barrier to bond rotation ? How is this helpful in spectroscopic detection of individual conformers ? 17

Unit-V

5. Write notes on— 17
- (i) Properties of covalent bonds.
 - (ii) Molecular and bond polarizability.

Y – 3141