

FACULTY OF PHARMACY

**M. Pharmacy (Pharmaceutical Chemistry) II-Semester (PCI) (Suppl.) Examination,
January 2020**

Subject: Advanced Organic Chemistry – II

Time: 3 Hrs

Max. Marks: 75

Note: Answer any five questions. All questions carry equal marks.

- 1 (a) What is green chemistry? Discuss the general principles of green chemistry.
(b) Give the synthetic applications of ultrasound assisted reactions? (10+5)
- 2 (a) Write a note on coupling reactions in peptide synthesis?
(b) Discuss the principle and applications of solid phase peptide synthesis. (6+9)
- 3 (a) What are pericyclic reactions? Discuss about sigmatropic reactions with its mechanism?
(b) Explain about photo oxidation and photo fragmentation. (8+7)
- 4 (a) Write a note on applications of enzymes in organic synthesis. (8+7)
(b) Discuss about phase transfer catalysis and its applications.
- 5 (a) Explain about Cahn Ingold Prelog sequence rule with examples.
(b) Discuss about the Cis-Trans isomerism and E-Z notations in compounds containing carbon carbon double bonds. (8+7)
- 6 (a) Write a note on various protecting group protocols employed in solid phase peptide synthesis.
(b) Write a note on (i) Transition metal catalysis (ii) Chiral pool (7+8)
- 7 (a) Explain the methods used in asymmetric synthesis.
(b) Write a note on Stereo selective synthesis. (8+7)
- 8 (a) Write a note on continuous flow reactors, their advantages and disadvantages. (8+7)
(b) Discuss the principle of microwave assisted synthesis.
