

FACULTY OF PHARMACY

**M. Pharmacy (Pharm. Chemistry) II-Semester (PCI) (Suppl.) Examination,
February 2019**

Subject : Advanced Organic Chemistry-II

Time: 3 Hrs

Max. Marks: 75

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

- 1 a) Discuss the Principle and applications of microwave irradiation reactions
b) Explain the basic principles of green chemistry in organic synthesis. (7+8)
- 2 Discuss asymmetric synthesis using chiral pool, chiral auxiliaries, chiral catalysts and chiral solvents with suitable examples
- 3 a) Write a note on transition – metal catalysed reactions in organic synthesis
b) What is biocatalysis? Describe the organic synthesis by using enzymes.
c) Discuss hydrogenation reactions using homogens catalysts.
4. Discuss electro cyclic and sigma tropic reactions in presence of heat and light with suitable examples
5. a) Write a note on solid phase combinatorial synthesis.
b) Discuss Various solid supports, linkers, protecting and deprotecting groups used in solid-phase peptide synthesis
6. a) Discuss any two methods of resolution of racemic mixtures. 9
b) Discuss sequence rules of R & S configuration with suitable examples. Explain how it is different from Fisher's D & L notations? 6
7. Write a note on
a) Photo – addition reactions
b) Phase – transfer catalysis
c) Ultrasound assisted reactions (5+5+5)
8. a) Discuss cycloaddition reactions with mechanism and stereochemistry in presence of heat and light.
b) Discuss coupling reactions in peptide synthesis (8+7)
