

Roll No.

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Total No. of Pages : 01

Total No. of Questions : 06

M.Pharma(Pharmaceutical Chemistry) (2017 & Onwards) (Sem.-2)

ADVANCED ORGANIC CHEMISTRY-II

Subject Code : MPC-202T

Paper ID : [74956]

Time : 3 Hrs.

Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of SIX questions.
2. Each question carries FIFTEEN marks.

1.
 - a. Describe twelve principles of green chemistry. (5)
 - b. Describe merits and demerits of microwave assisted reactions. (5)
 - c. Explain the working of continuous flow reactor. (5)
2.
 - a. Describe the steps of t-BOC protocol for solid phase peptide synthesis. Comment on resins used for t-BOC SPPS. (7.5)
 - b. What is segment strategy for solution phase peptide synthesis? (7.5)
3.
 - a. Explain the mechanism of photofragmentation in C_{12} using potential energy curve. (5)
 - b. Describe Woodward-Hoffman rule of electrocyclic reactions. (5)
 - c. Explain stereochemistry of Diels-Alder reaction by citing the reaction between two moles of 1, 3-butadiene. (5)
4.
 - a. Comparison of main advantages of heterogeneous vs. homogeneous catalysts. (5)
 - b. Briefly describe characterization of heterogeneous catalysts. (5)
 - c. Describe role of Wilkinson catalysts in synthetic organic chemistry. (5)
5.
 - a. What is asymmetric synthesis? Explain giving examples. (5)
 - b. Differentiate between optical inactivity in *meso* compound and racemic mixture. (5)
 - c. What is D and L system of relative configuration? Describe important rules to assign D and L configuration. (5)
6. Write short notes on : (7.5×2)
 - a. Applications of Phase transfer catalysis.
 - b. Catalytic asymmetric synthesis.