

PG (CBCS)
M.Sc. Semester-II Examination, 2020
CHEMISTRY
PAPER: CEM-202
(ORGANIC CHEMISTRY - II)

Full Marks: 20**Time: 1 Hour****Answer any two questions of the following:****2×10=20**

1. (a) What is chelotropic reaction? Give an example (b) Draw the Fischer projection for (2R, 3S) -2- chloro-3- fluoropentane. Convert this Fischer projection into Newman projection. 4+6
2. (a) What is atropisomerism? Define buttressing effect with an example. (b) Explain the reaction between cyclopentadiene and maleic anhydride indicating Frontier orbital interaction. Define 'site selectivity' with an example. Is it different from 'periselectivity'? 5+5
3. (a) Write a note on 'Sharpness asymmetric epoxidation'. (b) Explain Chichibabin reaction with mechanism and give an example. 5+5
4. (a) Illustrate disconnection approach for synthesis of organic compounds. (b) Write short notes on Birch reduction and Bayer Villiger reaction. 4+6
5. (a) What are Regioselectivity, Periselectivity and Site selectivity of pericyclic reactions? (b) Draw the energy diagram of ethylene and butadiene system with different substitutions. 4+6
6. (a) What are Conformational and configurational enantiomers? (b) Write notes on the chiral centre, chiral axis, chiral plane. 4+6
