

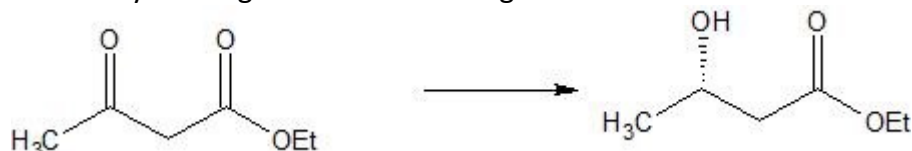
M. Sc DEGREE END SEMESTER EXAMINATION - APRIL 2021**SEMESTER 4 : CHEMISTRY****COURSE : 16P4CHET14EL ; ADVANCED ORGANIC CHEMISTRY***(For Regular - 2019 Admission and Supplementary - 2018/2017/2016 Admissions)*

Time : Three Hours

Max. Marks: 75

PART A**Answer any 10 (2 marks each)**

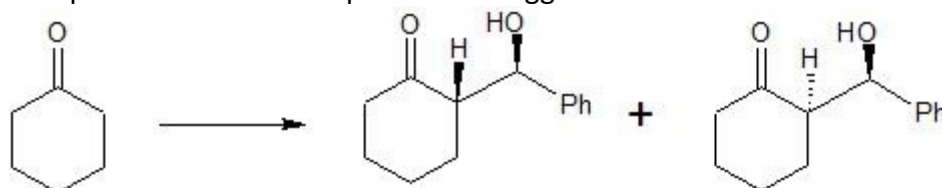
1. Calculate the atom economy in the epoxidation of styrene using perbenzoic acid?
2. How will you bring about the following conversion?



3. What is SciFinder? Explain.
4. Define the term 'controlled variable' in an experiment? Explain.
5. Outline the biosynthetic transformation of acetyl coenzyme to mevalonic acid.
6. Comment on the significance of the two carbon unit, acetyl coenzyme in biosynthesis.
7. What is meant by the genetic code?
8. Write a note on uracil mustard.
9. Explain any two methods of nomenclature of enzymes.
10. What are hyper branched polymers? Give one example.
11. What are the requirements for biomedical polymers?
12. Write the synthesis and uses of Buna S.
13. What is the use of polysulfones? Give the reason.

(2 x 10 = 20)**PART B****Answer any 5 (5 marks each)**

14. Discuss briefly on Asymmetric Diels Alder reaction citing a suitable example.
15. Complete the reaction sequence and suggest a mechanism for the following.



16. Discuss briefly on the frame work of scientific enquiry?
17. Compare and contrast various types of research.
18. Write a note on methods of drug designing based on lead modification
19. Explain C-T-AA analysis. Give the different methods used for this.
20. Define polymerisation. Discuss types of polymerisation with two examples each.
21. Describe the mechanism of convergent growth method.

(5 x 5 = 25)

PART C

Answer any 2 (15 marks each)

22. Give a detailed account of modern green solvents used in Organic chemistry.
23. Discuss the general strategies involved in the biosynthesis of terpenes, steroids and carbohydrates.
24. What are receptor proteins? Give its classification. Discuss the forces of interaction of a drug with the receptor and the theories of drug receptor interactions.
25. Give any one method for the synthesis of following compounds a) Quercetin, b) vitamin-C and c) testosterone

(15 x 2 = 30)