

Reg. No

Name

19P4018

MSc DEGREE END SEMESTER EXAMINATION- MARCH/APRIL 2019

SEMESTER 4 : CHEMISTRY

COURSE : 16P4CHET14EL : ADVANCED ORGANIC CHEMISTRY

(For Regular - 2017 Admission and Supplementary - 2016 Admission)

Time : Three Hours

Max. Marks: 75

Section A

Answer any 10 (2 marks each)

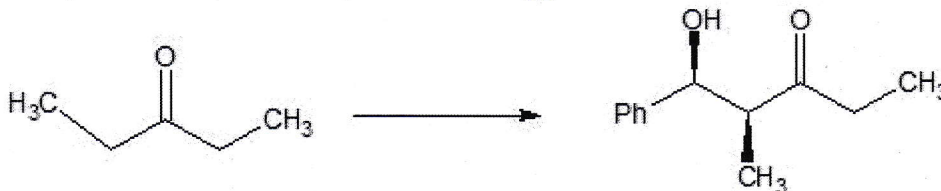
1. Calculate atom economy in the reaction between bromine and cinnamic acid.
2. What is BINAP? What is its synthetic use?
3. What are the two crucial factors led to the development of scientific knowledge?
4. Mention any two common mistakes in applying scientific methods.
5. Comment on the significance of the two carbon unit, acetyl coenzyme in biosynthesis.
6. Illustrate the biosynthesis of a cyclic terpenoid from an acyclic terpenoid.
7. Explain the terms biogenesis, biosynthesis and biomimetic synthesis.
8. What are the positions of attachment of phosphate and base on deoxyribose in the structure of DNA
9. What is the general structure of penicillins? Which is the key structural feature responsible for their activity?
10. Describe vulcanisation with one example.
11. What are condensation polymers? Give an example
12. Write any two uses of PTFE in medicinal industry. Give the reasons.
13. Explain the term 'addition polymers' with anyone example?

(2 x 10 = 20)

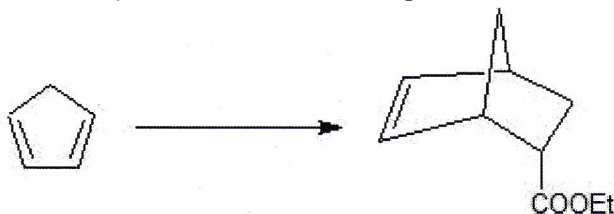
Section B

Answer any 5 (5 marks each)

14. Complete the reaction sequence and suggest a mechanism for the following.



15. How can you make the following conversion? Explain the steps involved.



16. Compare and contrast the two approaches in research
17. Compare and contrast various types of research.
18. Discuss the drugs used for cardio vascular diseases
19. Write briefly on the synthesis atropine.
20. What are the uses of conducting polymers?
21. What are flame retardant polymers? Give any two examples.

(5 x 5 = 25)

Section C

Answer any 2 (15 marks each)

22. Give a detailed account of modern green solvents used in Organic chemistry.
23. Describe the biosynthetic pathway for cholesterol.
24. What are receptor proteins? Give its classification. Discuss the forces of interaction 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)