

**MASTER OF PHILOSOPHY /DOCTOR
OF PHILOSOPHY IN CHEMISTRY
(MPHILCHEM/PhDCHEM)**

Term-End Examination

December, 2019

RCHE-001 : ADVANCES IN ORGANIC CHEMISTRY

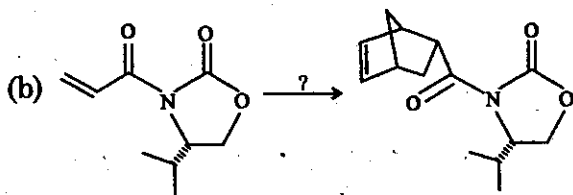
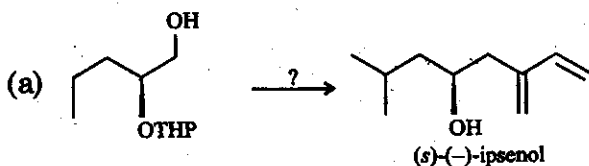
Time : 3 Hours

Maximum Marks : 100

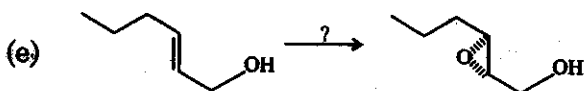
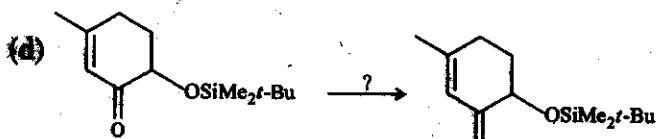
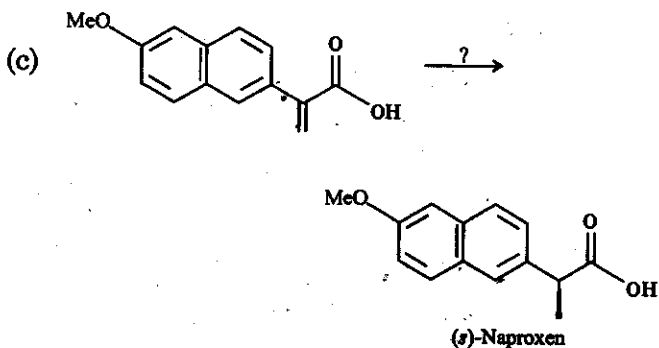
Note : Answer all the question given below.

1. Write the reagents required in the following reactions and state the name of the reactions :

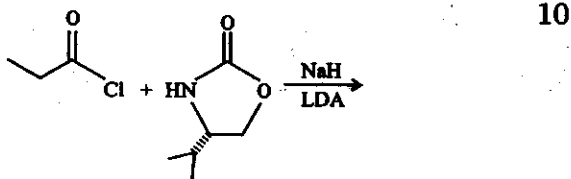
10



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2. Write the product formed in the following reaction. Justify the geometry of the product :

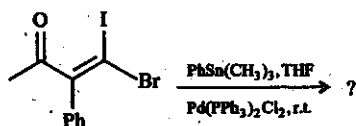


3. What is meant by enhanced microwave synthesis ? How is it different from the

conventional microwave synthesis ? Explain with the help of examples. 10

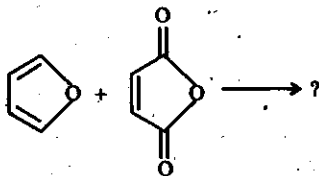
4. Describe the green principle of derivative reduction with the help of a suitable example. 10

5. Write the product in the following reaction. Give the mechanism and name the reaction : 10



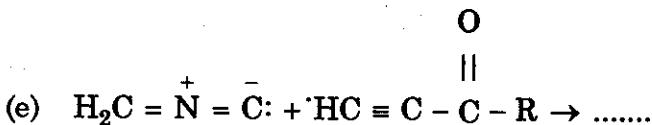
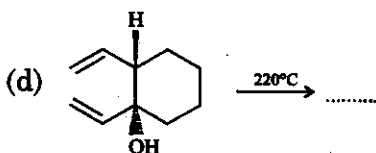
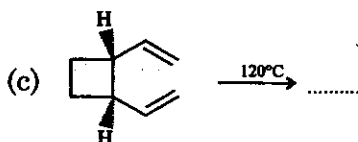
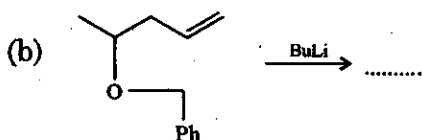
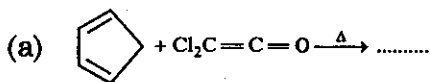
6. What are solvent free reactions ? Give an example. State the advantages of these reactions. 10

7. Complete the following reaction : 10



Give reasons for the stereoselectivity observed in this reaction.

8. Complete the following reactions : 10



9. Describe various types of interactions involved between host and guest molecules. 10

10. What are siderophores ? Explain giving examples. 10