

(i) Printed Pages: 4

Roll No.

(ii) Questions : 9

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Exam. Code :

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B.A./B.Sc. (General) 2nd Semester
(2042)

CHEMISTRY

Paper—VI : Organic Chemistry-B
(Same for B.Sc. Microbial & Food Tech.)

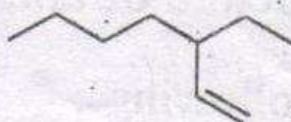
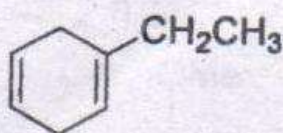
Time Allowed : Three Hours]

[Maximum Marks : 22

Note :—Attempt **FIVE** questions in all, selecting **ONE** question from each unit. Unit—V is compulsory.

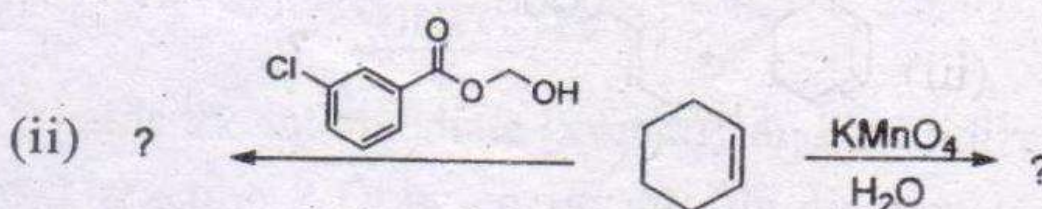
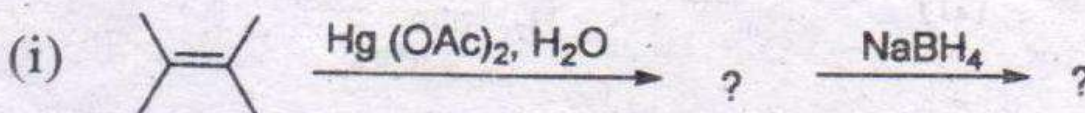
UNIT—I

1. (a) Write the IUPAC name of the following alkenes : 2



- (b) Write the structure of product and mechanism for the reaction between but-2-ene and hydrogen bromide. 2

2. (a) Write the product(s) of following reactions : 2

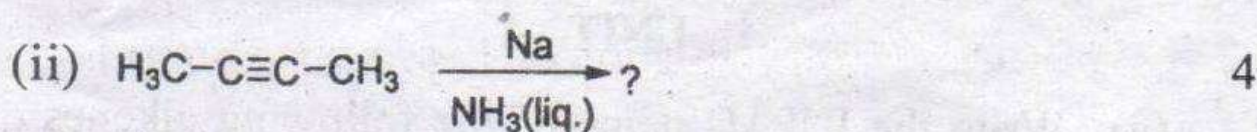
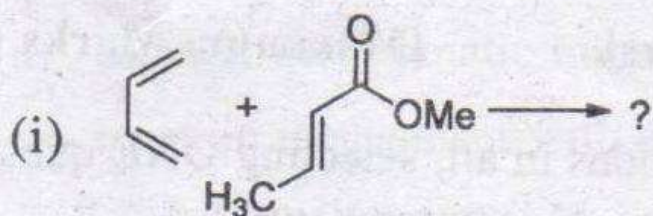


- (b) Describe the Markovnikov's rule and write the product for the following reaction with a brief discussion of its regioselectivity.



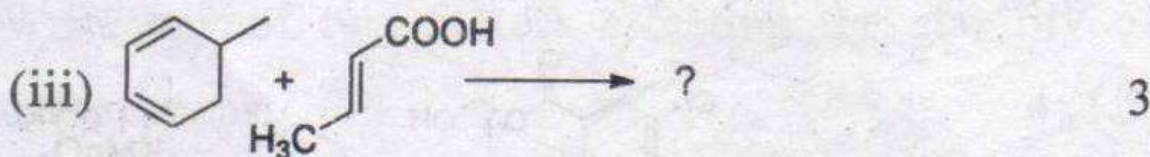
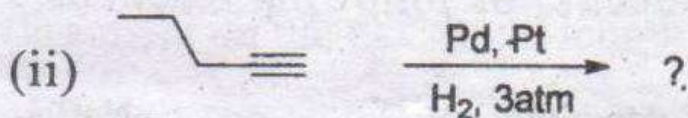
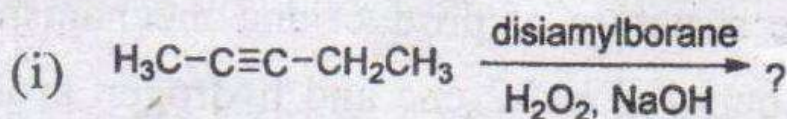
UNIT—II

3. Write the structure and IUPAC name of the product(s) for the following reactions and explain their mechanism also.



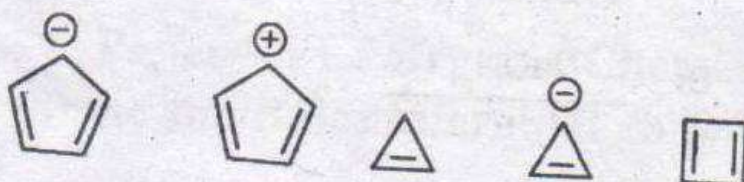
4. (a) Discuss the structure of allenes. 1

- (b) Complete the following :

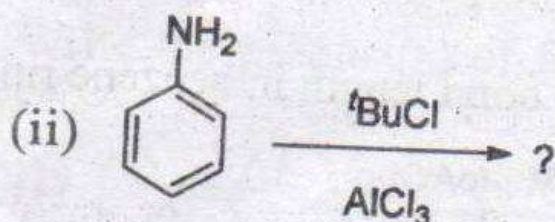
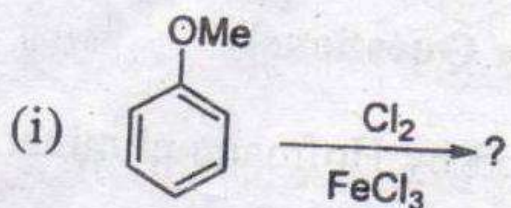


UNIT—III

5. (a) What are the activating and deactivating groups in aromatic compounds and which one of them form the more stable sigma complexes ? Explain. 2
- (b) Which of the following compounds is aromatic ? Explain with reason.



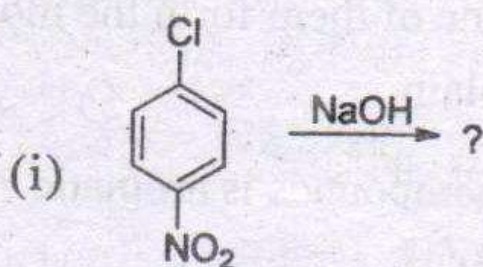
6. (a) Explain the stability of benzene based on the resonance. 1
- (b) Write the mechanism for the sulphonation of benzene. 2
- (c) Complete the following :



UNIT—IV

7. (a) What is the intermediate geometry and hybridization in S_N1 reaction ? Draw energy profile diagram too. 2

- (b) Complete the following and write the IUPAC name of the product(s) :



8. (a) Explain the aromatic nucleophilic elimination addition reaction mechanism with an example. 2
- (b) Explain the method of the preparation of isopropyl bromide from the isopropyl alcohol. 2

UNIT—V

(Compulsory Questions)

9. (a) What do you understand by Hofmann elimination ?
- (b) Write the short note on polymerization of alkynes.
- (c) Comment on the C-C bond length in benzene ring and its effect on the stability.
- (d) Write any of two factors affecting the stability of carbocations. 4×1.5