

[Total No. of (i) Printed Pages 4 (ii) Questions 9]

Sub Code : 0152 (1048) **Exam Code :** 0002

Exam : B.A./B.Sc.(General), 2nd Semester

Subject : Chemistry

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

Time : 3 Hours

Maximum Marks : 22

Note: Attempt any **five** questions in all including
Question No. **9** which is compulsory question
and selecting **one** question from each Unit
I-IV.

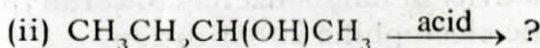
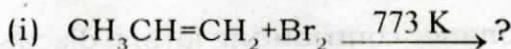
UNIT - I

1. With suitable examples, explain the followings :

(i) Hofmann elimination

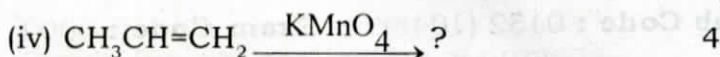
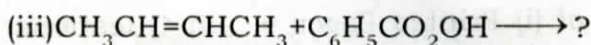
(ii) Ozonolysis 2,2

2. Write the products of following reactions :



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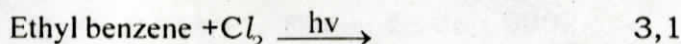
UNIT - II

3. Write appropriate examples, explain the following in relevance to alkynes :
- (i) Metal - ammonia reduction
 - (ii) Polymerization 2,2
4. (a) Illustrate the Diels -Alder reaction with example.
- (b) With appropriate example, discuss the mechanism of electrophilic addition reaction of alkynes. 1,3

UNIT - III

5. (a) Elaborate the mechanism of nitration of benzene.
- (b) List the factors which effect the *ortho* to *para* ratio of the products in aromatic electrophilic substitution. 2,2
6. (a) With resonance contributing forms, discuss the reactivity of halobenzenes towards the aromatic electrophilic substitution.

- (b) Write the product/s of following reaction :



UNIT - IV

7. (a) Discuss the stereochemistry of S_N^2 reaction.
- (b) Describe the addition - elimination mechanism of nucleophilic aromatic substitution reaction. 2,2
8. (a) What happens when ethyl bromide is treated with :
- (i) KCN
 - (ii) NaSH
 - (iii) Na/Dry ether
 - (iv) AgCN
- (b) Why allyl halides are more reactive than alkyl halides towards nucleophilic substitution reaction. 2,2

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Compulsory Question

9. (a) Give industrial application of propene.
(b) What do you understand by acidity of alkynes ?
(c) Define Huckel rule with example.
(d) How will you prepare chloroform ?

$$4 \times 1.5 = 6$$