

Total No. of Printed Pages: 3

SUBJECT CODE NO:- B-2002
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. F.Y (Sem-I)
Examination November/December- 2022
Chemistry Paper-II
(Organic Chemistry)

[Time: 1:30 Hours]

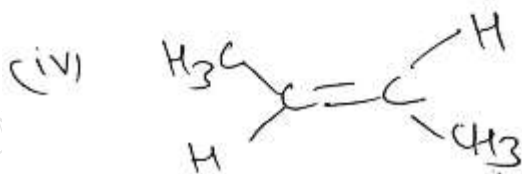
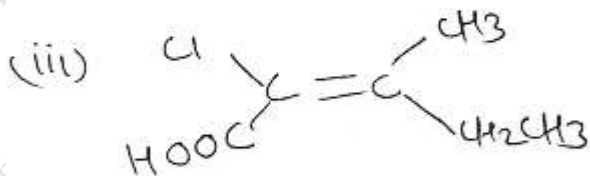
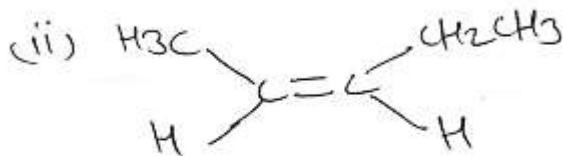
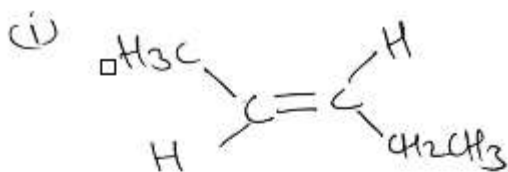
[Max. Marks:50]

Please check whether you have got the right question paper.

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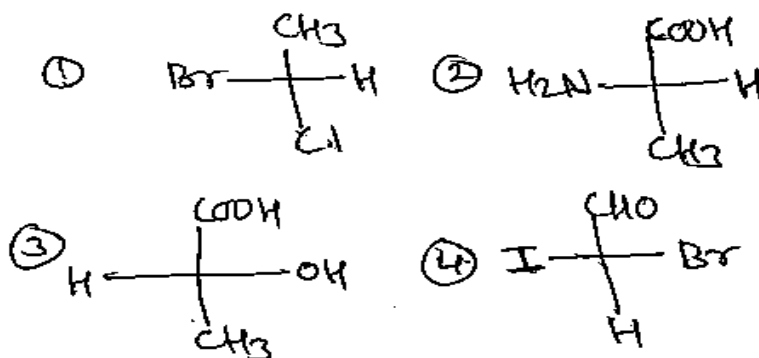
- 1) Attempt all question
- 2) Use blue or black pen only

- Q.1 a) i) Describe hyper conjugation with example 05
 ii) Explain the structure of carbocation and carbon free radicals with examples. 05
- b) Assign E-Z nomenclature to the following organic compounds 10



OR

- a) i) Explain steric effect with suitable example. 05
 ii) Explain types of reagent with example. 05
- b) Assign R and S nomenclature to each of the following compounds 10



- Q.2 a) i) Give preparation of alkanes by decarboxylation of carboxylic acid 05
 ii) Explain addition reaction of HBr to alkene with mechanism 05
- b) i) Explain Friedel Carff's acylation reaction with mechanism 05
 ii) Give any two methods of preparation of Chloroform 05

OR

- a) Write short notes on (any four) 20
- Kolbe's reaction of formation of alkanes
 - polymerization of alkenes
 - Aromaticity
 - Side Chain reaction of aryl halides
 - Saytzeff's rule
 - Reaction of carbanions

- Q.3 Choose and write the correct answer of following 10

1. Which of the following forms hydrogen bonding

- a) $\text{CH}_3\text{-O-CH}_3$ b) H_2O c) $\text{CH}_3\text{-CH}_3$ d) CH_4

2. Which of the following is a electrophile?
a) $C\bar{N}$ b) $CH_3\bar{O}$ c) BF_3 d) NH_3
3. Homolytic fission of c-c bond leads to the formation of.
a) carbinium ions b) carbon ions c) free radicals d) none of these
4. What is the possible number of optical isomers for a compound containing 2 dissimilar asymmetric carbon atoms?
a) 2^n b) n^2 c) $n+1$ d) $n+2$
5. Which of the following compounds will show geometrical isomevism?
a) 1-pentene b) 2-pentene c) 2-methyl-2-pentene d) 2-methyl-2-butene
6. Which of the following alkenes will have the highest boiling point?
a) Neopentane b) Isopentane c) butane d) n-octane
7. Which of the following compounds is most stable?
a) ethylene b) propylene c) 2,3 -Dimethyl-1-butene d) 2-butene
8. Which of the following regents will react with propene?
a) hot alkaline $KMNO_4$ b) $LiAlH_4$ c) cold dilute HNO_3 d) sodium metal
9. Aromatic hydrocarbons are also called
a) trienes b) arenes c) Huckel's compounds d) Alkozey compounds
10. Carbon tetrachloride is used as a fire extinguisher under the name
a) Iodo form b) phosgene c) Feron-12 d) pyrene