

This question paper contains 3 printed pages]

GA—08—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (First Semester) EXAMINATION

APRIL/MAY 2023

(CBCS/New Course)

CHEMISTRY

(Organic and Inorganic Chemistry-I)

(Monday, 24-4-2023)

Time : 10.00 a.m. to 12.00 noon

Time— Two Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Figures to the right indicate full marks.

(iii) All questions carry equal marks.

1. Solve any *three* (out of five) : 15

(a) Write a note on long form of periodic table.

(b) Write a note on general characteristics of *p*-block elements.

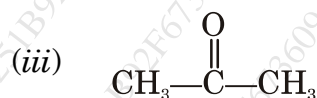
(c) Explain factors affecting on electronegativity.

(d) Explain any *two* preparation of XeF_4 with their structure.

(e) Define electron affinity. Explain the factors affecting on it.

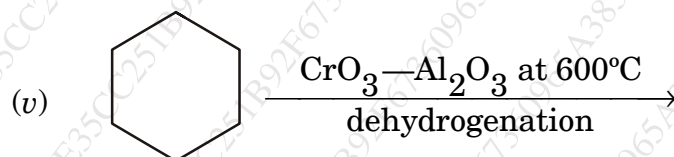
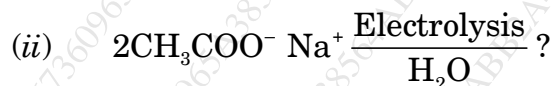
2. Solve any *three* (out of five) : 15

(a) Give the IUPAC name of the following compounds :

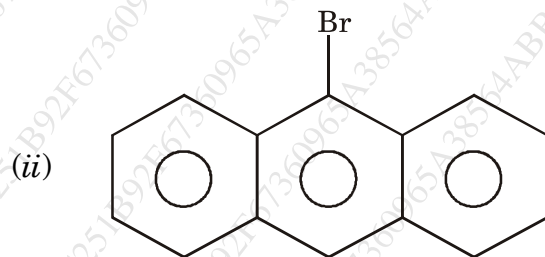
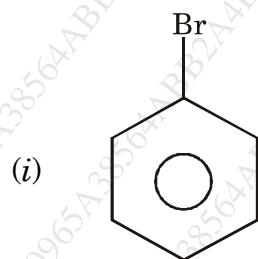


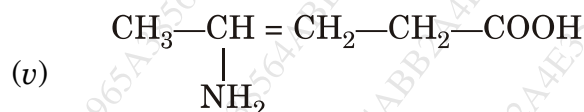
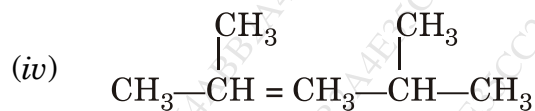
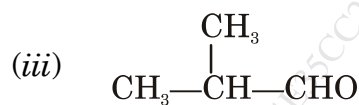
P.T.O.

- (v) CH_3NHCH_3 .
- (b) Explain the term homolytic and heterolytic bond fission with suitable example.
- (c) Predict the product of the following reactions :



- (d) Distinguish between carbocation and carbanion ion intermediate.
- (e) Write the IUPAC name of the following compounds :



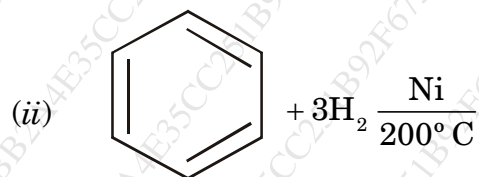
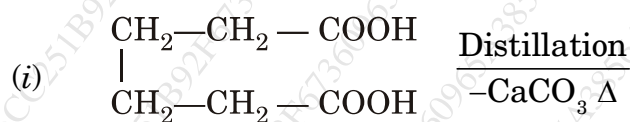


3. Solve any *two* of the following (out of four) :

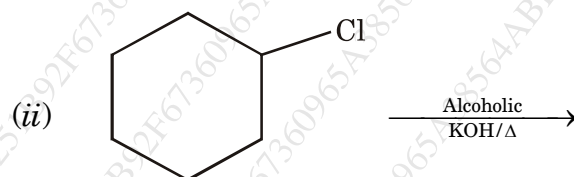
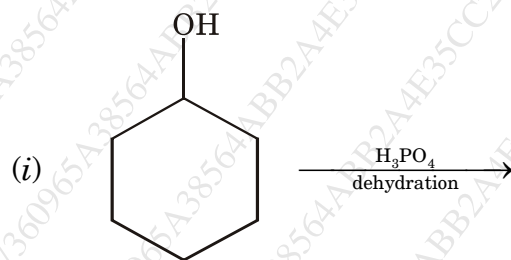
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(a) Discuss the mechanism of pyrolysis of ethane.

(b) What happens when



(c) Complete the following reactions :



(d) Explain Inductive effect in detail.