



CHEMISTRY ONLINE
— **TUITION** —

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CHEMISTRY

ORGANIC CHEMISTRY

Level & Board	AQA (A-LEVEL)
TOPIC:	HALOGENOALKANES
PAPER TYPE:	SOLUTION - 2
TOTAL QUESTIONS	10
TOTAL MARKS	21

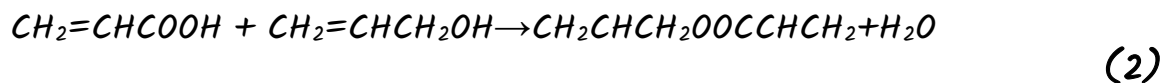
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Halogenoalkanes - 2

1.

(a)

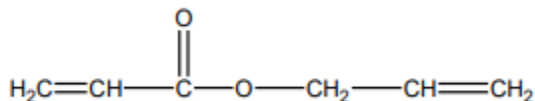
Balanced equation:



(b)

Structure of the ester:

Representing all of the functional groups



(2)

2. c

(1)

3.

(a)

Name of reaction: Substitution or hydrolysis.

(1)

(b)

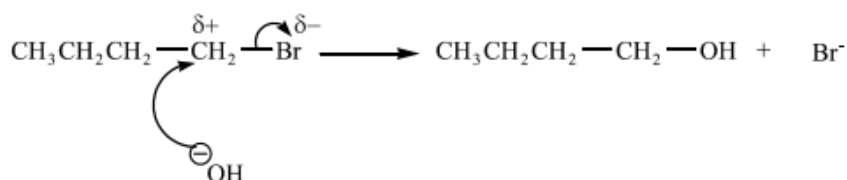
A nucleophile is a chemical species that donates electron pairs. In reactions, it attacks electron-deficient molecules.

Example: Cl^-

(1)

(c)

Mechanism:



(4)

4. C

(1)

5.

(a)

Structural isomers refer to compounds that have the same molecular formula but exhibit different structural, displayed, or skeletal formulas.

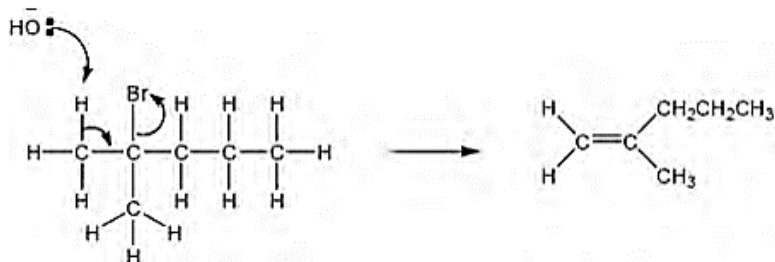
Despite having identical numbers and types of atoms, these isomers have distinct arrangements of atoms and bonding patterns.

(1)

(b)

Name of the mechanism:

Elimination



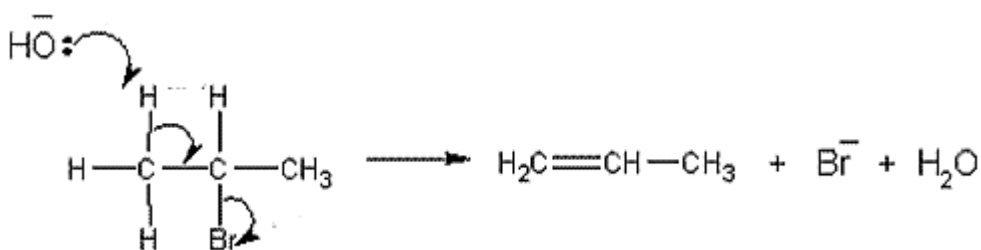
(5)

6. B

(1)

7.

Mechanism for the elimination reaction in which 2-bromopropane reacts with potassium hydroxide to form propene is **E1 mechanism**.



(3)

8. A

(1)

9.

Concerns about ozone depletion for two main reasons:

Long Residence Time:

CFCs take many years to reach the ozone layer due to their extended atmospheric lifespan, contributing to ongoing ozone depletion.

Ongoing Use and Other Substances:

CFCs are still in use, and there are other substances like halons and some HCFCs that also contribute to ozone depletion, requiring sustained efforts to address these sources.

(2)

10. C

(1)



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- Founder & CEO of Chemistry Online Tuition Ltd.
- Completed Medicine (M.B.B.S) in 2007
- Tutoring students in UK and worldwide since 2008
- CIE & EDEXCEL Examiner since 2015
- Chemistry, Physics, Math's and Biology Tutor

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