CHEMISTRY ONLINE
TUITION

Phone: +442081445350

www.chemistryonlinetuition.com

Email:asherrana@chemistryonlinetuition.com

CHEMISTRY

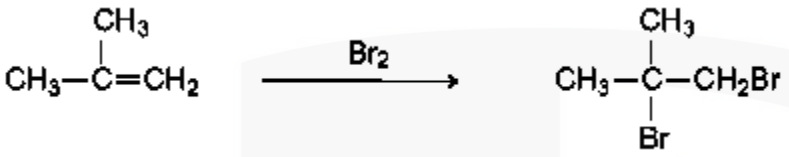
ORGANIC CHEMISTRY

Level & Board	AQA (A-LEVEL)
TOPIC:	ALKENES
PAPER TYPE:	SOLUTION - 2
TOTAL QUESTIONS	10
TOTAL MARKS	32

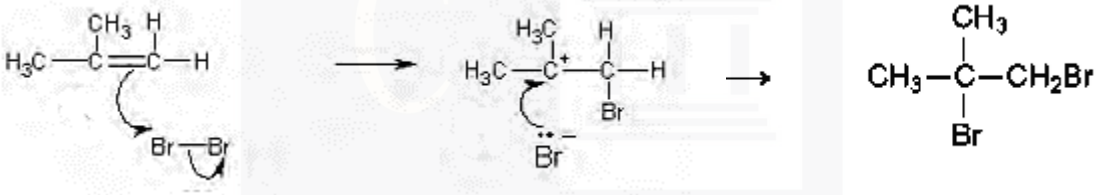
Alkenes - 3

1.

Name of Mechanism: *Electrophilic addition*



Mechanism:



(5)

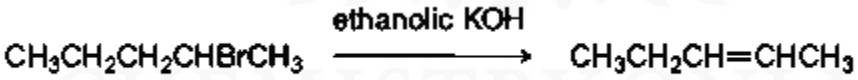
2. **B**

(1)

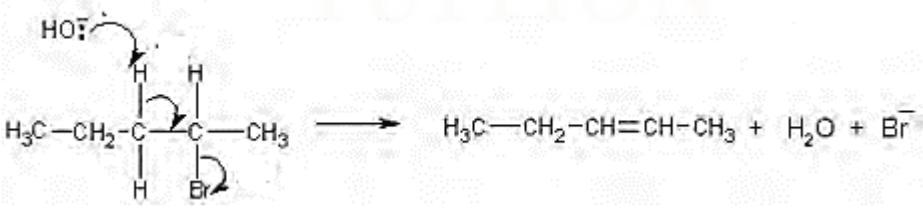
3.

(a)

Name of Mechanism: *Elimination*



Mechanism:

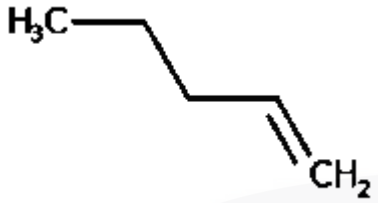


(4)

(b)

Structure of isomeric alkene i.e pent-1-ene

$CH_3CH_2CH_2CH=CH_2$



(1)

4. C

(1)

5.

(a)

For the process:
Reagent: Hydrogen gas (H_2)
Conditions: Nickel (Ni) catalyst
Temperature: 100–200 °C or heat

(2)

(b)

Difference in Structure:
Soft Margarine:
Soft margarine is less hydrogenated, containing more C=C bonds, and is more unsaturated than hard margarine.
Difference in Melting Point:
Soft Margarine:
Soft margarine has a lower melting point compared to hard margarine.

(4)

6. A

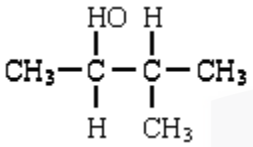
(1)

7.

(a)

Name of alcohol:

3-methylbutan-2-ol



(1)

(b)

***Elimination/dehydration** reaction is involved in the formation of the two alkenes.*

(1)

(c)

Reagent X can be:

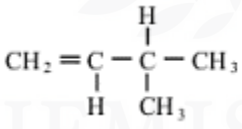
H_2SO_4 or H_3PO_4

(2)

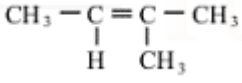
(d)

Structural formulae of the two isomeric alkenes can be represented as:

Alkene 1:



Alkene 2 :



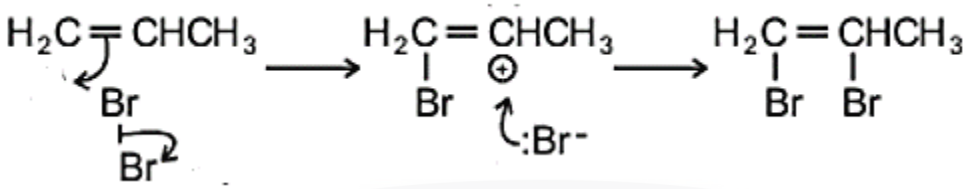
(2)

8. D

(1)

9.

Mechanism:



Name of product: 1,2-dibromopropane

(5)

10. A

(1)

DR. ASHAR RANA

M.B.B.S / MS. CHEMISTRY

CHEMISTRY ONLINE TUITION

Phone: +442081445350
www.chemistryonlinetuition.com
Email: asherrana@chemistryonlinetuition.com

- 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

CONTACT INFORMATION FOR **CHEMISTRY ONLINE TUITION**

- UK Contact: 02081445350
- International Phone/WhatsApp: 00442081445350
- Website: www.chemistryonlinetuition.com
- Email: asherrana@chemistryonlinetuition.com

Address: 210-Old Brompton Road, London SW5 OBS, UK