

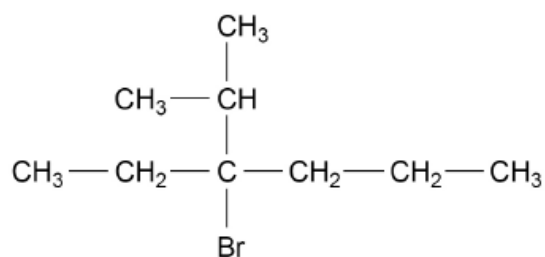
0	4	.	1
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$$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3 - \text{CH} \\ \quad \quad \quad \diagdown \quad \diagup \\ \quad \quad \quad \text{C} = \text{C} \\ \diagup \quad \diagdown \quad \diagup \quad \diagdown \\ \text{CH}_3 - \text{CH}_2 \quad \quad \quad \text{H} \quad \quad \quad \text{CH}_2 - \text{CH}_3 \end{array}$$

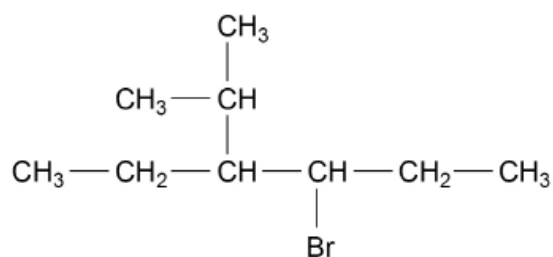
[6 marks]

[illegible]

0 4 . 2 Compound **J** reacts with hydrogen bromide to form compounds **K** and **L**.



Compound **K**



Compound **L**

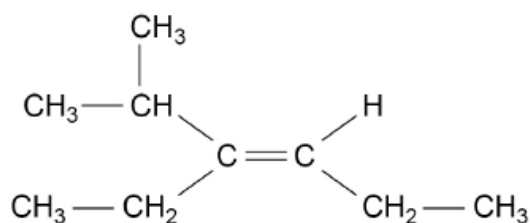
K is the major product.

Name and outline the mechanism for the formation of **K**.

[5 marks]

Name of mechanism _____

Outline of mechanism

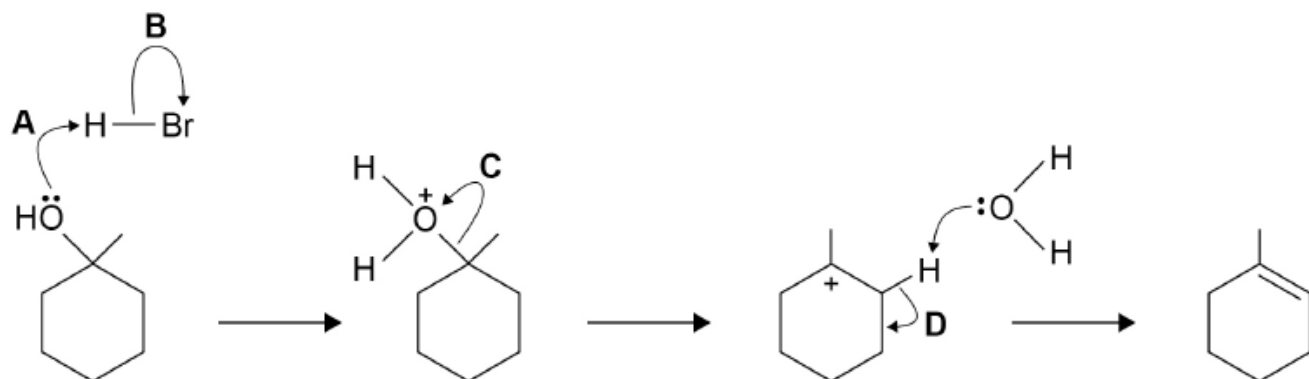


0 4 . 3 Explain why compound **K** is the major product in the reaction in Question 04.2.

[3 marks]

2. No.11

Which labelled curly arrow shows an **incorrect** movement of an electron pair?



[1 mark]

A ☐B ☐C ☐D ☐

3. No.12

A halogenoalkane reacts with ethanolic potassium hydroxide to form these alkenes by elimination:

- 2-ethylpent-1-ene
- *E*-3-methylhex-2-ene
- *Z*-3-methylhex-2-ene
- *E*-3-methylhex-3-ene
- *Z*-3-methylhex-3-ene

Which halogenoalkane would form these alkenes in this reaction?

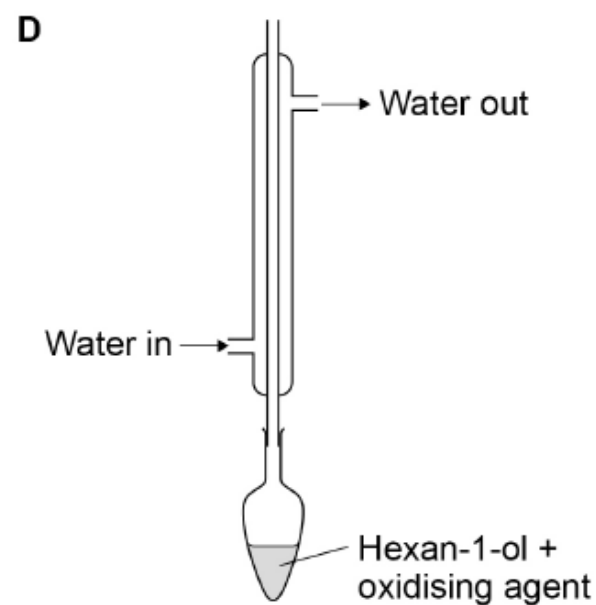
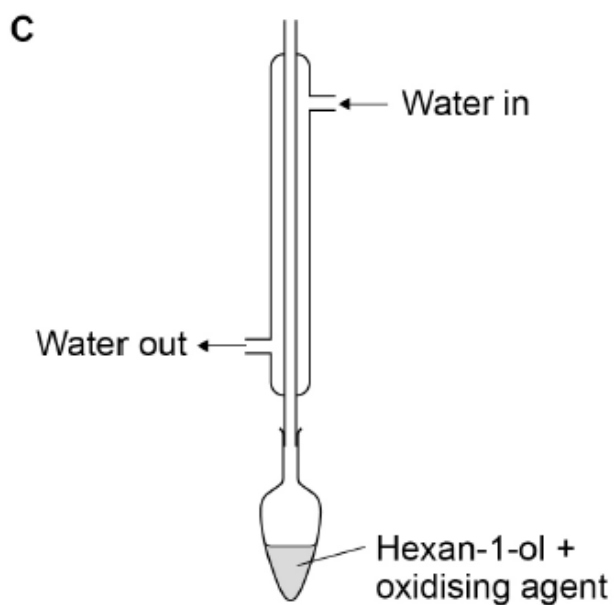
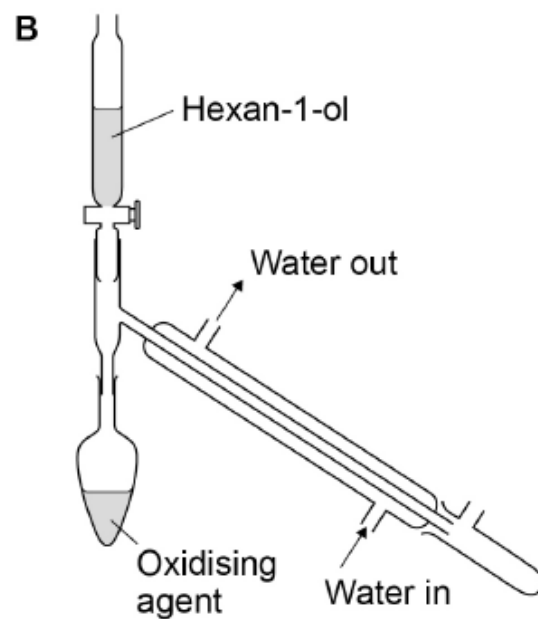
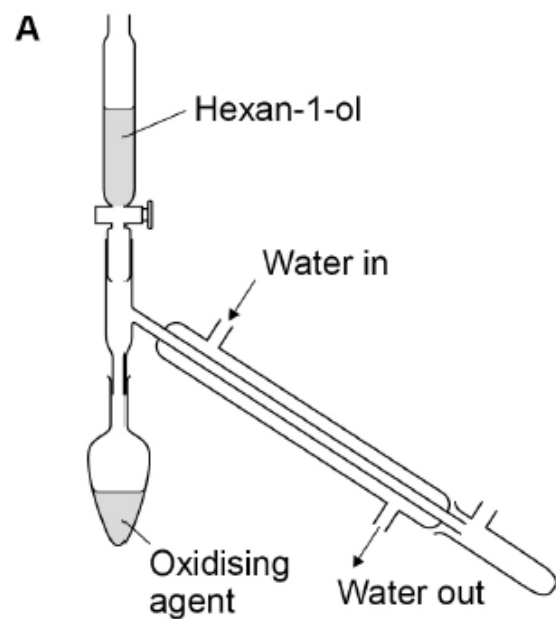
[1 mark]

A 1-bromo-2-ethylpentane ☐B 2-bromo-3-methylhexane ☐C 3-bromo-3-methylhexane ☐D 3-bromo-4-methylhexane ☐

4. No.13

Which diagram shows the correct apparatus for the conversion of hexan-1-ol to hexanal?

[1 mark]



A ☐

B ☐

C ☐

D ☐