

20.3 Stereoisomerism

Question Paper

Course	DPIB Chemistry
Section	20. Organic Chemistry (HL only)
Topic	20.3 Stereoisomerism
Difficulty	Easy

Time allowed: 10
Score: /5
Percentage: /100

Question 1

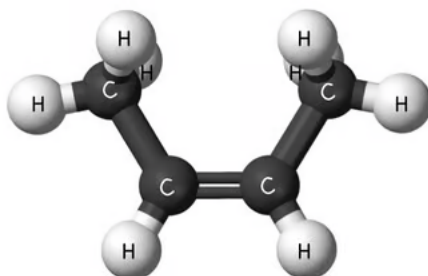
Which molecule contains a chiral carbon?

- A. 1-chloro-2-methylbutane
- B. 2-methylpropane
- C. Butane
- D. 2-chloropropane

[1 mark]

Question 2

What is name of this compound applying IUPAC rules?



- A. Trans-pent-2-ene
- B. Trans-but-2-ene
- C. But-1-ene
- D. Cis-but-2-ene

[1 mark]

Question 3

Which compound can exist as conformational isomers?

- A. $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$
- B. $\text{CH}_3\text{CHOHCH}_3$
- C. $\text{CH}_3\text{CHOHCH}_2\text{CH}_3$
- D. CH_2CHCH_3

[1 mark]

Question 4

Which statement about isomerism is correct?

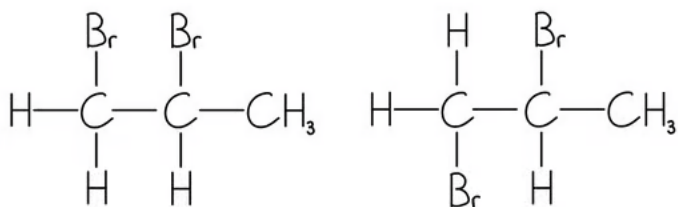
- A. A racemic mixture is optically active
- B. Pent-1-ene exhibits stereoisomerism
- C. 1-bromopropane has two optical isomers
- D. 2-amino-3-methylpentane is a diastereomer

[1 mark]

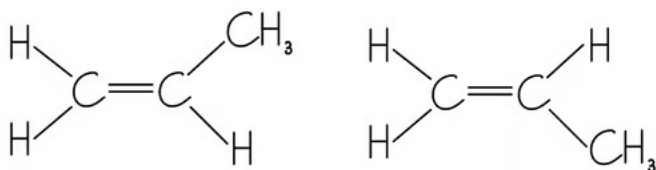
Question 5

Which pair are cis and trans isomers?

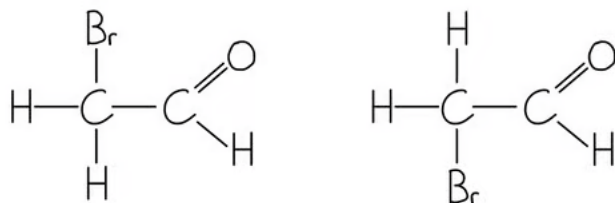
A.



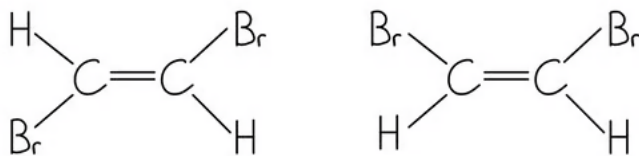
B.



C.



D.



[1 mark]



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