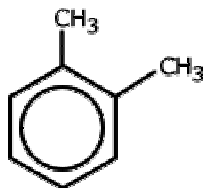


Exercise 9.16 – Hydrocarbons

Q916-01 Which compound is a saturated hydrocarbon?

- A. ethane
- B. ethene
- C. ethyne
- D. ethanol

Q916-02 The chemical structure below represents a molecule of which molecular formula?

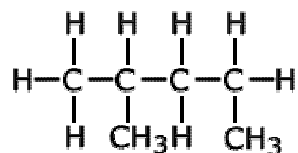


- A. C_8H_{10}
- B. C_6H_6
- C. C_8H_{12}
- D. C_8H_6

Q916-03 Propane C_3H_8 undergoes incomplete combustion in a limited amount of air. What products are most likely to be formed during this reaction?

- A. Carbon monoxide and water
- B. Carbon monoxide and hydrogen
- C. Carbon dioxide and water
- D. Carbon dioxide and hydrogen

Q916-04 What is the correct name of this compound.



- A. 1,3-dimethylbutane
- B. 2,4-dimethylbutane
- C. 2-methylbutane
- D. 2-methylpentane

Q916-05 Which formula is a correct representation of pentane?

- A. $CH_3CH_2CHCH_2CH_3$
- B. $(CH_3CH_2)_2CH_3$
- C. $CH_3(CH_2)_3CH_3$
- D. $CH_3(CH_3)_3CH_3$

Exercise 9.16 – Hydrocarbons

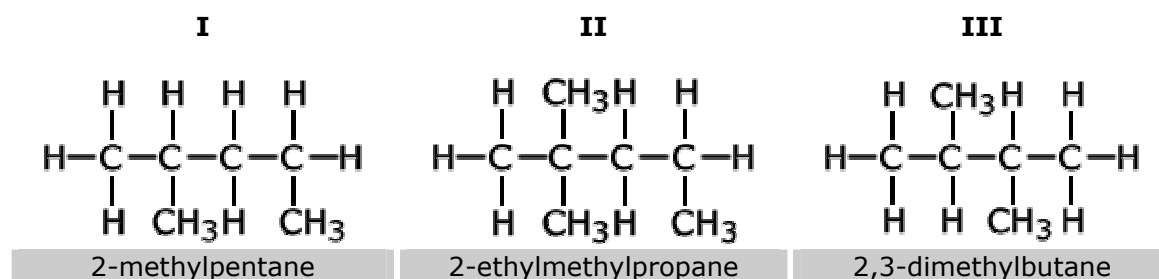
Q916-06 Which statement about neighbouring members of all homologous series is correct?

- A. They have the same empirical formula
- B. They differ by a CH_2 group
- C. They possess different functional groups
- D. They differ in their degree of unsaturation

Q916-07 Which is a member of the same homologous series as $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$?

- A. $\text{CH}_3(\text{CH}_2)_3\text{CH}_2\text{CH}_3$
- B. $\text{CH}_3\text{CH}(\text{CH}_3)_2$
- C. $\text{CH}_3\text{CHCHCH}_3$
- D. $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$

Q916-08 Which names are correct for the following isomers of C_6H_{14} ?



Q916-09 Which substance could be formed from the incomplete combustion of a hydrocarbon

- I carbon
 - II hydrogen
 - III carbon monoxide
- A. I only
 - B. I and II only
 - C. I and III only
 - D. II and III only

Q916-10 Which formulae represent butane or its isomers

- I $\text{CH}_3(\text{CH}_2)_3\text{CH}_3$
 - II $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_3$
 - III $(\text{CH}_3)_3\text{CH}$
- A. I only
 - B. I and II only
 - C. I and III only
 - D. II and III only