

A Level Chemistry B (Salters)
H433/01 Fundamentals of chemistry

Colour by Design

Question Set 10

Multiple Choice Questions

1 What describes a substance with a high retention time in gas-liquid chromatography?

- A high volatility
- B high solubility in the stationary phase
- C high affinity for the mobile phase
- D non-polar molecules

Your answer

[1]

2 An unsaturated carboxylic acid has an M_r of 280.

70g of the acid is saturated by 1.0g of hydrogen.

How many C=C bonds are there in one molecule of the acid?

- A 1
- B 2
- C 4
- D 8

Your answer

[1]

3 Which compound will react with acidified potassium dichromate(VI)?

- A $\text{CH}_3\text{CH}(\text{OH})\text{COOH}$
- B $(\text{CH}_3)_3\text{COH}$
- C CH_3COOH
- D CH_3COCH_3

Your answer

[1]

4 Which statement/s is/are a result of delocalisation in benzene?

- 1 Benzene undergoes substitution reactions.
 - 2 Benzene reacts faster with bromine than alkenes do.
 - 3 The enthalpy change of hydrogenation of benzene is three times that of cyclohexene.
- A** 1, 2 and 3
B Only 1 and 2
C Only 2 and 3
D Only 1

Your answer

[1]

5 Kekulé represented benzene as:



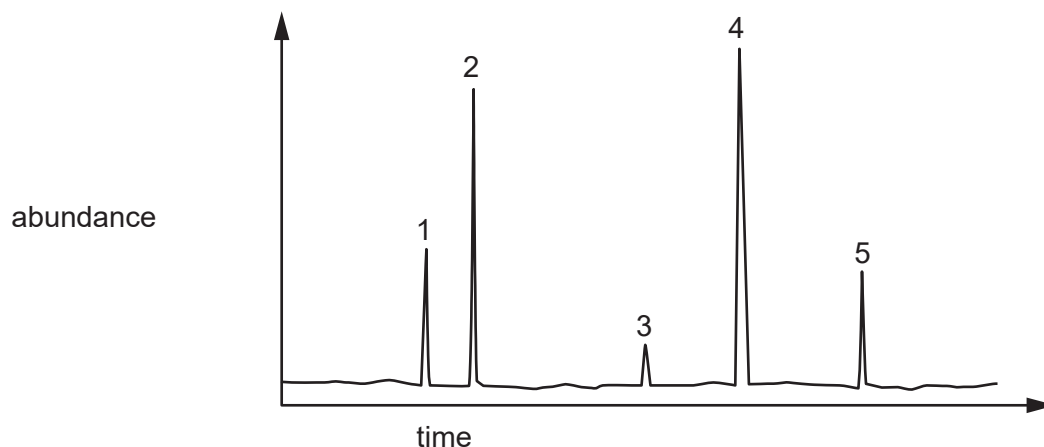
Which statement/s follow/s from this structure?

- 1 All the carbon-carbon bonds are of equal length in benzene.
 - 2 The C–C–C bond angle in benzene is 120° .
 - 3 Benzene has a planar structure.
- A** 1, 2 and 3
B Only 1 and 2
C Only 2 and 3
D Only 1

Your answer

[1]

6 The diagram below shows a gas chromatogram.



Which statement about the gas chromatogram is correct?

- A The mixture consisted of at least 5 different substances.
- B Substance 5 came out of the column first.
- C Substance 1 had the greatest affinity for the stationary phase.
- D Substance 5 had the greatest affinity for the mobile phase.

Your answer

[1]

Total Marks for Question Set 10: 6

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