

**GCSE Chemistry B (Twenty First Century Science)**  
**J258/01** Breadth in Chemistry (Foundation Tier)

**Question Set 15**

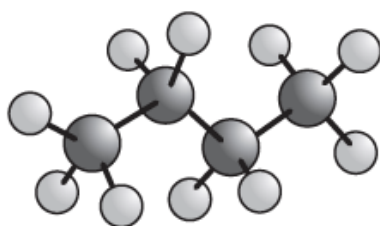
Multiple Choice Questions

1

'Camping gas' contains butane.



**Fig. 1.1** shows a model of butane. The model helps us to imagine what butane looks like.



**Fig. 1.1**

(a) **Fig. 1.1** is called a 'ball and stick' model.

(i) What do the 'sticks' show?

Put a ring around the **two** correct answers.

covalent bonds

intermolecular forces

ionic bonds

shared electrons

[2]

(ii) Which statement is correct about the model of butane shown in **Fig. 1.1**?

Tick (✓) **one** box.

It shows how the electrons are arranged.

It shows the shape of the molecule.

It shows the exact sizes of the atoms

[1]

(b) Butane is a hydrocarbon.

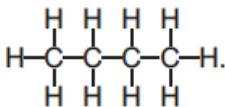
Which two statements about butane are correct?

Tick (✓) **two** boxes.

The molecular formula of butane is  $C_4H_{10}$ .

The empirical formula of butane is  $CH_2$ .

Butane can be shown as



Butane is an alkene.

[2]

(c) 58 g of butane contain 48 g of carbon.

What is the percentage of carbon in butane?

Give your answer to **2** significant figures.

Percentage of carbon = ..... % [3]

**Total Marks for Question Set 15: 8**

---

# OCR

Oxford Cambridge and RSA

## **Copyright Information**

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website ([www.ocr.org.uk](http://www.ocr.org.uk)) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge