

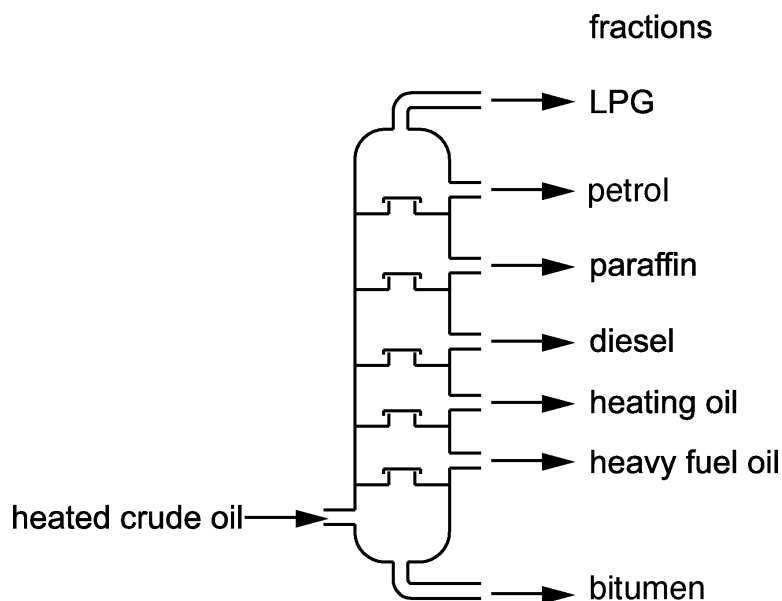
**GCSE Chemistry A (Gateway Science)**

**J248/02 C4-C6 and C7 Foundation (Foundation Tier)**

**Question Set 4**

- 1 Crude oil is used as a source of fuels. It is separated into many fractions by fractional distillation.

The diagram shows a fractionating column.



- (a) Crude oil contains a mixture of hydrocarbons that boil at different temperatures.

Describe **how** crude oil can be separated using a fractionating column.

[4]

- (b) The alkane,  $C_{15}H_{32}$ , is cracked to make an alkene,  $C_6H_{12}$  and an alkane,  $C_3H_8$ .

Construct the **balanced symbol** equation for this reaction.

[1]

- (c) Alkenes are used to make polymers. Polymers are used to make clothes such as socks and jumpers.

Suggest **one** property of a polymer that makes it suitable for making clothes.

[1]

**Total Marks for Question Set 4: 6**

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