

AQA, OCR, Edexcel

GCSE Science

GCSE Chemistry

**Crude Oil and Cracking
Questions**

M M E

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Total Marks: /37

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Crude oil, hydrocarbons and alkanes

Q1: Give a description of how crude oil is formed?

(2 marks)

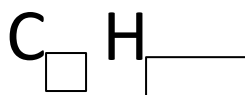
Q2: What is crude oil mostly made up of?

(2 marks)

Q3: What is the name given to the molecules that are found in crude oil?

(1 mark)

Q4: Complete the general formula for the compounds found in crude oil.



(2 marks)

Q5: Match up the alkane with the number in the homologous series.

1

Propane

2

Methane

3

Butane

4

Ethane

(4 marks)

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Q6: Draw the alkane with the formula C_4H_{10} .

(2 marks)

Q7: What is the purpose of fractional distillation?

(1 marks)

Q8: Within each fraction, will the molecules have different or similar numbers of carbon atoms?

(1 mark)

Q9: The fractions can be processed to produce fuels and feedstock for the petrochemical industry. Give three examples of fuels which are produced from crude oil that are used in our society.

(3 marks)

Q10: How does fractional distillation use heat to perform its purpose?

(3 marks)

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Properties of hydrocarbons

Q11: Give two examples of properties of hydrocarbons that are dependent upon the size of the hydrocarbon molecule.

(2 marks)

Q12: Complete the sentences using the words in the boxes.

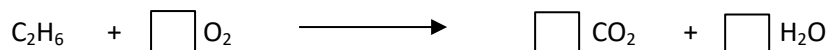
The combustion of hydrocarbon fuels releases _____. During combustion, the _____ and _____ in the fuels are oxidised.

The complete combustion of a hydrocarbon produces _____ and _____.

Water	Carbon dioxide	Carbon	Hydrogen	Energy
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(5 marks)

Q13: Balance the equation for the complete combustion of this hydrocarbon.



(3 marks)

Cracking and alkenes

Q14: What is cracking?

(2 marks)

Q15: Give an example of a method by which cracking can be carried out.

(1 mark)

Q16: Alkenes along with alkanes can be produced from cracking. How do we test for alkenes and what do we see?

(2 marks)

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Q17: What are alkenes used for?

(1 mark)