



GCSE

**Science A (4461) /
Chemistry (4421)**

Specification A

CHY1BP, CH1BSF & CH1BSH

Mark Scheme

2011 Examination – June Series

The blank answer sheet for this component can be found at the end of this document.

This component is an objective test for which the following list indicates the correct answers used in marking the candidates' responses.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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GCSE
SCIENCE A (4461)/CHEMISTRY (4421)
 Objective Test Answer Key
CHY1BP (Oils, Earth and Atmosphere)

June 2011

Foundation Tier

Question	Key			
One	A	polymer (dust cover)		3
	B	polymer (tray)		2
	C	polymer (coat and hat)		4
	D	polymer (cable cover)		1
Two	A	corn		4
	B	olive		3
	C	rapeseed		2
	D	sunflower		1
Three	A	volcanic eruptions		4
	B	convection currents		2
	C	continental drift		1
	D	radioactive processes		3
Four	A	alkenes		2
	B	polymers		3
	C	monomers		4
	D	alkanes		1
Five	A	Sunflower oil separates as a layer above the water		2
	B	Sunflower oil is reacted with hydrogen at 60 °C		3
	C	Sunflower oil is mixed with petroleum diesel		4
	D	Mixture of sunflower seeds and water is pressed		1
	A	B	C	D
Six	1	2	1	3
Seven	4	2	4	3
Eight	3	3	3	2
Nine	4	3	3	3

GCSE
SCIENCE A (4461)/CHEMISTRY (4421)
 Objective Test Answer Key
CHY1BP (Oils, Earth and Atmosphere)
June 2011
 Higher Tier

Question	Key			
One	A	Sunflower oil separates as a layer above the water		2
	B	Sunflower oil is reacted with hydrogen at 60 °C		3
	C	Sunflower oil is mixed with petroleum diesel		4
	D	Mixture of sunflower seeds and water is pressed		1
Two	A	compound A		3
	B	compound B		4
	C	compound C		1
	D	compound D		2
	A	B	C	D
Three	3	3	3	2
Four	4	3	3	3
Five	1	2	4	3
Six	3	2	2	3
Seven	2	2	3	2
Eight	1	4	2	3
Nine	3	3	3	3

The AQA UMS Conversion Calculator can be found at the following web address:

<http://www.aqa.org.uk/umsconversion>

Unit : CHY1BP CHEMISTRY UNIT 1B

Centre :

Candidate Number :

UCI :

Series : 6M11

Candidate Name :

28-JUN-11

For completion by the Examination Invigilator. Please fill this circle if the candidate is absent:

HIGHER TIER

Instructions on how to complete this answer sheet are given on the question paper. Please make sure you follow them carefully.

Questions **ONE** to **NINE** Choose one response **1 - 4** for each of the parts **A - D**

QUESTION ONE

	1	2	3	4
1A Sunflower oil separates as a layer above the water.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B Sunflower oil is reacted with hydrogen at 60 degrees C.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C Sunflower oil is mixed with petroleum diesel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D Mixture of sunflower seeds and water is pressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO

	1	2	3	4
2A Compound A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B Compound B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C Compound C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D Compound D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE

	1	2	3	4
3A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR

	1	2	3	4
4A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE

	1	2	3	4
5A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SIX

	1	2	3	4
6A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SEVEN

	1	2	3	4
7A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION EIGHT

	1	2	3	4
8A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION NINE

	1	2	3	4
9A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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FOUNDATION TIER

Instructions on how to complete this answer sheet are given on the question paper. Please make sure you follow them carefully.

Questions **ONE** to **NINE** Choose one response **1 - 4** for each of the parts **A - D**

QUESTION ONE		1	2	3	4
1A	Polymer (dust cover)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	Polymer (tray)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	Polymer (coat and hat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	Polymer (cable cover)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Corn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Olive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Rapeseed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Sunflower	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A	volcanic eruptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	convection currents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	continental drift	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	radioactive processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A	alkenes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	polymers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	monomers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	alkanes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE		1	2	3	4
5A	Sunflower oil separates as a layer above the water.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B	Sunflower oil is reacted with hydrogen at 60 degrees C.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C	Sunflower oil is mixed with petroleum diesel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D	Mixture of sunflower seeds and water is pressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SIX		1	2	3	4
6A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SEVEN		1	2	3	4
7A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION EIGHT		1	2	3	4
8A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION NINE		1	2	3	4
9A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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