

**GCSE**

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

*Specification A*

**CHY1BP, CH1BSF & CH1BSH**

**Mark Scheme**

*2012 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 students' responses.

Further copies of this Mark Scheme are available to download from the AQA Website: [www.aqa.org.uk](http://www.aqa.org.uk)

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**GCSE****SCIENCE A (4461)/CHEMISTRY (4421)**

## Objective Test Answer Key

**CHY1BP (Oils, Earth and Atmosphere)****June 2012**

Foundation Tier

Question	Key			
One	<b>A</b>	where earthquakes occur		<b>2</b>
	<b>B</b>	where convection currents occur, causing the tectonic		<b>3</b>
	<b>C</b>	where there is a mixture of gases		<b>1</b>
	<b>D</b>	where iron and nickel are found as metals		<b>4</b>
Two	<b>A</b>	bromine		<b>4</b>
	<b>B</b>	ethene		<b>3</b>
	<b>C</b>	poly(propene)		<b>2</b>
	<b>D</b>	water		<b>1</b>
Three	<b>A</b>	boiling point		<b>4</b>
	<b>B</b>	colour		<b>2</b>
	<b>C</b>	density		<b>3</b>
	<b>D</b>	chemical reactivity		<b>1</b>
Four	<b>A</b>	the colour of the oil		<b>4</b>
	<b>B</b>	the time the oil takes to flow from <b>P</b> to <b>Q</b>		<b>2</b>
	<b>C</b>	the distance between <b>P</b> and <b>Q</b>		<b>3</b>
	<b>D</b>	the four temperatures used for each oil		<b>1</b>
Five	<b>A</b>	38		<b>3</b>
	<b>B</b>	90		<b>2</b>
	<b>C</b>	380		<b>1</b>
	<b>D</b>	600		<b>4</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Six	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>
Seven	<b>2</b>	<b>4</b>	<b>2</b>	<b>4</b>
Eight	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>
Nine	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>

**GCSE****SCIENCE A (4461)/CHEMISTRY (4421)**

## Objective Test Answer Key

**CHY1BP (Oils, Earth and Atmosphere)**

June 2012

Higher Tier

Question	Key			
One	<b>A</b>	38		<b>3</b>
	<b>B</b>	90		<b>2</b>
	<b>C</b>	380		<b>1</b>
	<b>D</b>	600		<b>4</b>
Two	<b>A</b>	Formula A		<b>4</b>
	<b>B</b>	Formula B		<b>2</b>
	<b>C</b>	Formula C		<b>3</b>
	<b>D</b>	Formula D		<b>1</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Three	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>
Four	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>
Five	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>
Six	<b>4</b>	<b>2</b>	<b>4</b>	<b>4</b>
Seven	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>
Eight	<b>4</b>	<b>3</b>	<b>2</b>	<b>2</b>
Nine	<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>

Unit : CHY1BP CHEMISTRY UNIT 1B

Centre :

Candidate Number :

UCI :

Series : 6M12

Candidate Name :

22-JUN-12

*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	38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	90	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	380	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	600	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Formula A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Formula B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Formula C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Formula 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"/>	<input type="radio"/>
3B	<input type="radio"/>	<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"/>	<input type="radio"/>
3D	<input type="radio"/>	<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"/>	<input type="radio"/>
4B	<input type="radio"/>	<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"/>	<input type="radio"/>
4D	<input type="radio"/>	<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"/>	<input type="radio"/>
5B	<input type="radio"/>	<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"/>	<input type="radio"/>
5D	<input type="radio"/>	<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"/>	<input type="radio"/>
6B	<input type="radio"/>	<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"/>	<input type="radio"/>
6D	<input type="radio"/>	<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"/>	<input type="radio"/>
7B	<input type="radio"/>	<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"/>	<input type="radio"/>
7D	<input type="radio"/>	<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"/>	<input type="radio"/>
8B	<input type="radio"/>	<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"/>	<input type="radio"/>
8D	<input type="radio"/>	<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"/>	<input type="radio"/>
9B	<input type="radio"/>	<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"/>	<input type="radio"/>
9D	<input type="radio"/>	<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	where earthquakes occur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	where convection currents occur, causing the tectonic ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	where there is a mixture of gases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	where iron and nickel are found as metals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	bromine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	ethene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	poly(propene)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A	boiling point	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	colour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	density	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	chemical reactivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A	the colour of the oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	the time the oil takes to flow from P to Q	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	the distance between P and Q	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	the four temperatures used for each oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE		1	2	3	4
5A	38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B	90	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C	380	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D	600	<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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