



GCSE

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

Specification A

CHY1AP, CH1ASF & CH1ASH

Mark Scheme

2011 Examination – March 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

CHY1AP (Products from Rocks)

March 2011

Foundation Tier

Question	Key			
One	A	Aluminium		3
	B	Calcium		4
	C	Copper		2
	D	Iron		1
Two	A	Quarrying leads to loss of habitat plus increased . . .		4
	B	Quarrying provides much needed jobs.		3
	C	Quarrying satisfies society's need for limestone and its products.		2
	D	Lakes, climbing walls and picnic areas can be created . . .		1
Three	A	Carbon		1
	B	Gold		2
	C	Magnesium		4
	D	Zinc		3
Four	A	Ethane		1
	B	Pentane		3
	C	Hexane		4
	D	Dodecane		2
Five	A	Carbon monoxide (CO) / Substance A		4
	B	Hydrogen (H ₂) / Substance B		2
	C	Methane (CH ₄) / Substance C		1
	D	Hydrogen sulfide (H ₂ S) / Substance D		3
	A	B	C	D
Six	2	4	1	3
Seven	4	2	2	4
Eight	1	2	1	4
Nine	4	3	2	2

GCSE
SCIENCE A (4461) / CHEMISTRY (4421)

Objective Test Answer Key

CHY1AP (Products from Rocks)

March 2011

Higher Tier

Question	Key			
One	A	Carbon monoxide (CO) / Substance A		4
	B	Hydrogen (H ₂) / Substance B		2
	C	Methane (CH ₄) / Substance C		1
	D	Hydrogen sulfide (H ₂ S) / Substance D		3
Two	A	Metal A		2
	B	Metal B		3
	C	Metal C		4
	D	Metal D		1
	A	B	C	D
Three	1	2	1	4
Four	4	3	2	2
Five	4	3	2	1
Six	3	1	4	2
Seven	2	4	4	4
Eight	2	2	1	2
Nine	3	2	1	4

Unit : CHY1AP CHEMISTRY UNIT 1A

Centre :

Candidate Number :

UCI :

Series : 3G11

Candidate Name :

02-MAR-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	Substance A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	Substance B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	Substance C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	Substance D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Metal A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Metal B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Metal C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Metal 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	Aluminium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	Calcium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	Copper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	Iron	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Quarrying leads to loss of habitat plus increased...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Quarrying provides much needed jobs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Quarrying satisfies society's need for limestone and...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Lakes, climbing walls and picnic areas can be created...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A	Carbon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	Gold	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	Magnesium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	Zinc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A	Ethane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	Pentane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	Hexane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	Dodecane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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