



GCSE

Science A (4461)

Specification A

BLY1BP, BL1BSF & BL1BSH

Mark Scheme

2009 Examination – November 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)/BIOLOGY (4411)
 Objective Test Answer Key
BLY1BP (Evolution and Environment)
November 2009
 Foundation Tier

Question	Key			
One	A	helps the mole to detect its prey in the burrow	3	
	B	helps the mole to dig through the soil	2	
	C	helps to stop the mole from losing heat	1	
	D	helps the mole to sense the size of the tunnel	4	
Two	A	Carbon dioxide taken in by plants	3	
	B	Methane released by cow	1	
	C	Oil used in the factory	4	
	D	Sulfur dioxide released by the chimney	2	
Three	A	clones	3	
	B	cuttings	4	
	C	gametes	1	
	D	variations	2	
Four	A	evolution	1	
	B	extinction	3	
	C	natural selection	4	
	D	reproduction	2	
Five	A	has needle-shaped leaves	3	
	B	has a shallow root system spread over a wide area	4	
	C	stores water in bulbs on its roots	2	
	D	produces large numbers of seeds	1	
	A	B	C	D
Six	1	2	1	3
Seven	4	4	2	2
Eight	4	4	2	3
Nine	2	2	2	1

GCSE
SCIENCE A (4461)/BIOLOGY (4411)
 Objective Test Answer Key
BLY1BP (Evolution and Environment)
November 2009
 Higher Tier

Question	Key			
One	A	has needle-shaped leaves		3
	B	has a shallow root system spread over a wide area		4
	C	stores water in bulbs on its roots		2
	D	produces large numbers of seeds		1
Two	A	Some heat energy escapes into space.		3
	B	Heat energy is re-radiated by greenhouse gases.		4
	C	Heat energy is radiated into the atmosphere.		2
	D	Solar radiation warms the Earth's surface.		1
	A	B	C	D
Three	4	4	2	3
Four	2	2	2	1
Five	3	1	4	1
Six	3	1	2	2
Seven	2	3	3	4
Eight	3	2	3	4
Nine	2	1	2	2

Unit : BLY1BP BIOLOGY UNIT 1B

Centre :

Candidate Number :

UCI :

Series : BG09

Candidate Name :

19-NOV-09

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	has needle-shaped leaves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	has a shallow root system spread over a wide area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	stores water in bulbs on its roots	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	produces large numbers of seeds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Some heat energy escapes into space.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Heat energy is re-radiated by greenhouse gases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Heat energy is radiated into the atmosphere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Solar radiation warms the Earth's surface.	<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	helps the mole to detect its prey in the burrow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	helps the mole to dig through the soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	helps to stop the mole from losing heat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	helps the mole to sense the size of the tunnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Carbon dioxide taken in by plants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Methane released by cow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Oil used in the factory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Sulfur dioxide released by the chimney	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A	clones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	cuttings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	gametes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	variations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A	evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	natural selection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	reproduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE		1	2	3	4
5A	has needle-shaped leaves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B	has a shallow root system spread over a wide area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C	stores water in bulbs on its roots	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D	produces large numbers of seeds	<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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