



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

GCSE

**Science A (4461) /
Biology (4411)**

Specification A

BLY1BP, BL1BSF & BL1BSH

Mark Scheme

2010 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
BLY1B (Evolution and Environment)
November 2010
 Foundation Tier

Question	Key			
One	A	causes acid rain		2
	B	causes less carbon dioxide to be taken out of the atmosphere		1
	C	may pollute farmland with poisonous chemicals		3
	D	produces methane		4
Two	A	A skin cell is taken from a donor.		1
	B	The new cell divides to make a group of similar cells.		3
	C	Different types of body cell are produced.		4
	D	The nucleus is removed, leaving cytoplasm.		2
Three	A	extinction		4
	B	mutation		1
	C	natural selection		3
	D	variation		2
Four	A	chromosomes		4
	B	clones		1
	C	gametes		3
	D	genes		2
Five	A	the wind blows sand around		3
	B	very cold nights		4
	C	soft ground		2
	D	dry conditions		1
	A	B	C	D
Six	4	4	3	2
Seven	3	4	1	4
Eight	2	3	2	4
Nine	1	3	3	1

GCSE
SCIENCE A (4461) / BIOLOGY (4411)
 Objective Test Answer Key
BLY1B (Evolution and Environment)
November 2010
 Higher Tier

Question	Key			
One	A	the wind blows sand around		3
	B	very cold nights		4
	C	soft ground		2
	D	dry conditions		1
Two	A	adult cell cloning		4
	B	taking cuttings		1
	C	embryo transplants		3
	D	tissue culture		2
	A	B	C	D
Three	2	3	2	4
Four	1	3	3	1
Five	2	3	4	1
Six	2	3	4	1
Seven	3	2	4	3
Eight	3	3	4	2
Nine	3	4	2	3

Unit : BLY1BP BIOLOGY UNIT 1B

Centre :

Candidate Number :

UCI :

Series : BG10

Candidate Name :

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 the wind blows sand around	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B very cold nights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C soft ground	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D dry conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO

	1	2	3	4
2A adult cell cloning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B taking cuttings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C embryo transplants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D tissue culture	<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	causes acid rain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	causes less carbon dioxide to be taken from atmosphere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	may pollute farmland with poisonous chemicals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	produces methane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	A skin cell is taken from a donor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	The new cell divides to make a group of similar cells	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Different types of body cell are produced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	The nucleus is removed, leaving cytoplasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A	extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	mutation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	natural selection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	variation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A	chromosomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	clones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	gametes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	genes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE		1	2	3	4
5A	the wind blows sand around	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B	very cold nights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C	soft ground	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D	dry conditions	<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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