GCSE

Science A (4461) / Physics (4451)

Specification A

PHY1BP, PH1BSF & PH1BSH

Mark Scheme

2011 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 students' 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)/PHYSICS (4451)

Objective Test Answer Key

PHY1BP (Radiation and the Universe)

November 2011

Foundation Tier

Question	Key		
One	**A**	gamma rays	**1**
	B	infra red rays	**3**
	C	radio waves	**4**
	D	visible light	**2**
Two	**A**	alpha particle	**4**
	B	beta particle	**2**
	C	gamma ray	**1**
	D	X-rays	**3**
Three	**A**	a distant galaxy	**3**
	B	a satellite	**1**
	C	the Earth	**2**
	D	the Universe	**4**
Four	**A**	conclusion	**2**
	B	control variable	**4**
	C	independent variable	**3**
	D	prediction	**1**
Five	**A**	gamma rays	**1**
	B	infra red rays	**3**
	C	radio waves	**2**
	D	ultraviolet rays	**4**

	A	**B**	**C**	**D**
Six	**2**	**2**	**3**	**3**
Seven	**2**	**4**	**2**	**2**
Eight	**2**	**1**	**2**	**2**
Nine	**3**	**4**	**4**	**3**

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SCIENCE A (4461)/PHYSICS (4451)

Objective Test Answer Key

PHY1BP (Radiation and the Universe)

November 2011

Higher Tier

Question	Key		
One	**A**	gamma rays	**1**
	B	infra red rays	**3**
	C	radio waves	**2**
	D	ultraviolet rays	**4**
Two	**A**	analogue signal reaching a receiver	**3**
	B	analogue signal sent from a transmitter	**4**
	C	digital signal reaching a receiver	**1**
	D	digital signal sent from a transmitter	**2**

	A	B	C	D
Three	**2**	**1**	**2**	**2**
Four	**3**	**4**	**4**	**3**
Five	**2**	**3**	**2**	**4**
Six	**4**	**2**	**3**	**2**
Seven	**3**	**2**	**3**	**4**
Eight	**3**	**2**	**2**	**2**
Nine	**4**	**4**	**3**	**3**

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

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

OTQ3

GCSE SCIENCE

AQA

Unit : PHY1BP **PHYSICS UNIT 1B**

Centre :

Candidate Number : **UCI :**

Candidate Name :

Series : BG11

15-NOV-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	gamma rays	○	○	○	○
1B	infra red rays	○	○	○	○
1C	radio waves	○	○	○	○
1D	ultraviolet rays	○	○	○	○

QUESTION TWO		1	2	3	4
2A	analogue signal reaching a receiver	○	○	○	○
2B	analogue signal sent from a transmitter	○	○	○	○
2C	digital signal reaching a receiver	○	○	○	○
2D	digital signal sent from a transmitter	○	○	○	○

QUESTION THREE	1	2	3	4
3A	○	○	○	○
3B	○	○	○	○
3C	○	○	○	○
3D	○	○	○	○

QUESTION FOUR	1	2	3	4
4A	○	○	○	○
4B	○	○	○	○
4C	○	○	○	○
4D	○	○	○	○

QUESTION FIVE	1	2	3	4
5A	○	○	○	○
5B	○	○	○	○
5C	○	○	○	○
5D	○	○	○	○

QUESTION SIX	1	2	3	4
6A	○	○	○	○
6B	○	○	○	○
6C	○	○	○	○
6D	○	○	○	○

QUESTION SEVEN	1	2	3	4
7A	○	○	○	○
7B	○	○	○	○
7C	○	○	○	○
7D	○	○	○	○

QUESTION EIGHT	1	2	3	4
8A	○	○	○	○
8B	○	○	○	○
8C	○	○	○	○
8D	○	○	○	○

QUESTION NINE	1	2	3	4
9A	○	○	○	○
9B	○	○	○	○
9C	○	○	○	○
9D	○	○	○	○

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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 gamma rays	○	○	○	○
1B infra red rays	○	○	○	○
1C radio waves	○	○	○	○
1D visible light	○	○	○	○

QUESTION TWO	1	2	3	4
2A alpha particle	○	○	○	○
2B beta particle	○	○	○	○
2C gamma ray	○	○	○	○
2D X-rays	○	○	○	○

QUESTION THREE	1	2	3	4
3A a distant galaxy	○	○	○	○
3B a satellite	○	○	○	○
3C the Earth	○	○	○	○
3D the Universe	○	○	○	○

QUESTION FOUR	1	2	3	4
4A conclusion	○	○	○	○
4B control variable	○	○	○	○
4C independent variable	○	○	○	○
4D prediction	○	○	○	○

QUESTION FIVE	1	2	3	4
5A gamma rays	○	○	○	○
5B infra red rays	○	○	○	○
5C radio waves	○	○	○	○
5D ultraviolet rays	○	○	○	○

QUESTION SIX	1	2	3	4
6A	○	○	○	○
6B	○	○	○	○
6C	○	○	○	○
6D	○	○	○	○

QUESTION SEVEN	1	2	3	4
7A	○	○	○	○
7B	○	○	○	○
7C	○	○	○	○
7D	○	○	○	○

QUESTION EIGHT	1	2	3	4
8A	○	○	○	○
8B	○	○	○	○
8C	○	○	○	○
8D	○	○	○	○

QUESTION NINE	1	2	3	4
9A	○	○	○	○
9B	○	○	○	○
9C	○	○	○	○
9D	○	○	○	○

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