



GCSE

Science A 4461

Physics 4451

PHY1BP F & H

PHY1BS F & H

Mark Scheme

2007 examination - November series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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PHY1B (Radiation and the Universe)

Foundation Tier

Question	Key			
One	A	gamma rays	2	
	B	infra red rays	1	
	C	radio waves	4	
	D	visible light	3	
Two	A	black-painted surface	4	
	B	mirror	1	
	C	white-painted surface	2	
	D	blue-painted surface	3	
Three	A	3		
	B	4		
	C	2		
	D	1		
Four	A	1		
	B	4		
	C	3		
	D	2		
Five	A	0.42	1	
	B	3	2	
	C	27.5	4	
	D	68.5	3	
Six	A	analogue electrical signal	2	
	B	digital light signal	3	
	C	microwaves	4	
	D	sound waves	1	
	A	B	C	D
Seven	2	3	1	1
Eight	1	1	4	1
Nine	4	4	3	3

PHY1B (Radiation and the Universe)

Higher Tier

Question	Key			
One	A	analogue electrical signal	2	
	B	digital light signal	3	
	C	microwaves	4	
	D	sound waves	1	
Two	A	infra red radiation	1	
	B	ultraviolet radiation	3	
	C	visible light	2	
	D	X-rays	4	
	A	B	C	D
Three	1	1	4	1
Four	4	4	3	3
Five	4	2	1	1
Six	4	4	1	4
Seven	1	2	2	4
Eight	1	4	3	2
Nine	3	2	2	3