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Examiners' Report/ Principal Examiner Feedback

November 2010

GCSE

360Science

GCSE Science
Multiple Choice Paper P1b (5010)

GCSE Physics
Multiple Choice Paper P1b (5046)

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5010 Science/ 5046 Physics (Multiple Choice P1b) Examiners' Report

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Foundation Tier

Overall the performance of candidates in the first sixteen questions showed that they had been well prepared for this module test. In 9 out of the first 16 questions over 50% of candidates opted for the correct response.
It was disappointing that about 54% of candidates could not put Mercury, Earth And Jupiter in order of size when given the diameter of each planet and over 60% of candidates did not link the Big Bang to the start of the Universe.
Candidates displayed good knowledge of uses of waves in medicine and the idea of iris scans. Candidates also showed a good understanding about the relationship between mass and weight and the effects on the human body of long space flights.

Common Questions

Most of the common questions differentiated well between Foundation and Higher Tier candidates and in the respective tiers most discriminated well between strong and weak candidates. However, a surprisingly high level of difficulty was encountered when candidates were asked about the force on a rocket engine. Almost 60% of foundation tier and 50% of higher tier candidates thought that the direction of the force on a rocket engine at lift-off was downwards.
Most candidates showed a good understanding of waves and the electromagnetic spectrum. As expected calculating the accelerating force proved to be very straightforward for most candidates and shows that candidates have been well prepared for this type of question.

Higher Tier

Overall the performance of candidates in the last sixteen questions showed that they had been well prepared for this module test. In 8 out of the last 16 questions 50% or more of the candidates opted for the correct response.
Candidates demonstrated a good understanding of gravitational field strength, fluorescence, red shift and seismic waves. However, almost 50% of candidates thought that different types of electromagnetic radiation have different speeds in a vacuum and only 30% of candidates knew that SETI monitored radio waves from outer space.
Almost 40% of candidates made the usual mistake of failing to halve the distance in Q38 and over 60% did not change kHz to Hz in Q39.

Grade Boundaries – November 2010

Multiple Choice Papers – GCSE Science

Raw Mark Grade Boundaries

5005/5025	Max mark	A*	A	B	C	D	E	F	G
H	24	19	17	15	13	9	7		
F	24				18	15	12	9	6

5006/5026	Max mark	A*	A	B	C	D	E	F	G
H	24	17	15	13	12	8	6		
F	24				15	13	11	9	7

5007/5035	Max mark	A*	A	B	C	D	E	F	G
H	24	18	15	12	10	7	5		
F	24				17	14	11	8	5

5008/5036	Max mark	A*	A	B	C	D	E	F	G
H	24	19	17	15	14	9	6		
F	24				18	15	12	10	8

5009/5045	Max mark	A*	A	B	C	D	E	F	G
H	24	16	14	12	11	8	6		
F	24				14	12	10	8	6

5010/5046	Max mark	A*	A	B	C	D	E	F	G
H	24	17	15	13	11	8	6		
F	24				17	14	12	10	8

Uniform Mark Grade Boundaries for these units

	Max UMS	A*	A	B	C	D	E	F	G
H	40	36	32	28	24	20	18		
F	27				24	20	16	12	8

Note: On higher tier papers, the "allowed" grade E is calculated as half a grade width

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