



General Certificate of Secondary Education

Science Single Award Modular 3469

Module 17: Energy & Electricity

Module Test Answer Keys

March 2007 examination 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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Set and published by the Assessment and Qualifications Alliance.

Energy & Electricity : Foundation Tier

Question No.	KEY
One	1 – resistor 2 – variable resistor 3 – cell 4 – battery
Two	1 – radiation 2 – conduction 3 – convection 4 – evaporation
Three	1 – potential difference 2 – resistance 3 – current 4 – power
Four	1 – moves to the left 2 – points to 0 3 – moves further 4 – moves to the right
Five	1 – thermistor 2 – LDR 3 – filament lamp 4 – diode
Six	it is not practical to replace batteries on a satellite there is an almost continuous supply of solar energy in space
Seven	G has the same frequency as H H has the same peak voltage as J
Eight	8.1 – B, 8.2 – D, 8.3 – D, 8.4 – D
Nine	9.1 – A, 9.2 – A, 9.3 – A, 9.4 – C
Ten	10.1 – B, 10.2 – D, 10.3 – B, 10.4 – C

Energy & Electricity : Higher Tier

Question No.	KEY
One	1 – thermistor 2 – LDR 3 – filament lamp 4 – diode
Two	1 – nuclear fuel 2 – water behind a dam (hydroelectricity) 3 – coal 4 – wind
Three	G has the same frequency as H H has the same peak voltage as J
Four	the current is directly proportional to potential difference the resistance remains constant
Five	5.1 – B, 5.2 – D, 5.3 – D, 5.4 – D
Six	6.1 – A, 6.2 – A, 6.3 – A, 6.4 – C
Seven	7.1 – B, 7.2 – D, 7.3 – B, 7.4 – C
Eight	8.1 – C, 8.2 – C, 8.3 – C, 8.4 – B
Nine	9.1 – B, 9.2 – C, 9.3 – B, 9.4 – D
Ten	10.1 – B, 10.2 – D, 10.3 – A, 10.4 – C