



General Certificate of Secondary Education

Physics A 3453

Module 23: Physics in Action

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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Physics in Action : Foundation Tier

Question No.	KEY
One	1 – OR gate 2 – LED 3 – capacitor 4 – relay
Two	1 – input sensors 2 – processors 3 – logic gates 4 – output devices
Three	1 – capacitor 2 – LDR 3 – thermistor 4 – fan
Four	1 – tilt switch 2 – LED 3 – relay 4 – siren
Five	1 – pressure switch 2 – tilt switch 3 – magnetic switch 4 – moisture switch
Six	Q T
Seven	H I
Eight	8.1 – B, 8.2 – C, 8.3 – C, 8.4 – B
Nine	9.1 – C, 9.2 – C, 9.3 – A, 9.4 – D
Ten	10.1 – C, 10.2 – C, 10.3 – D, 10.4 – D

Physics in Action : Higher Tier

Question No.	KEY
One	1 – pressure switch 2 – tilt switch 3 – magnetic switch 4 – moisture switch
Two	1 – 1000 ohms 2 – 12 ohms 3 – 220 ohms 4 – 240 ohms
Three	H I
Four	P S
Five	5.1 – B, 5.2 – C, 5.3 – C, 5.4 – B
Six	6.1 – C, 6.2 – C, 6.3 – A, 6.4 – D
Seven	7.1 – C, 7.2 – C, 7.3 – D, 7.4 – D
Eight	8.1 – C, 8.2 – B, 8.3 – C, 8.4 – C
Nine	9.1 – D, 9.2 – B, 9.3 – C, 9.4 – A
Ten	10.1 – B, 10.2 – C, 10.3 – C, 10.4 – D