

Name of the Student: _____

Max. Marks : 13 Marks

Time : 13 Minutes

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
(i)	1 up(wards) (1) 2 down(wards) (1)	independent marks accept out(wards from the magnet) accept in(wards) / into (magnet) allow 1 mark for 1 down / in(wards) AND 2 up / out(wards)	(2) AO1

Question number	Answer	Additional guidance	Mark
(ii)	substitution (1) $0.15 = 0.5(0) \times 2.7 \times L(\text{length})$ rearrangement and evaluation (1) (length =) 0.11 (m)	alternative method re-arrangement (1) (length =) $\frac{F}{B \times I}$ Or (length =) $\frac{0.15}{0.5(0) \times 2.7}$ (substitution and) evaluation (1) (length =) 0.11 (m) allow any values that round to 0.11 e.g 0.111 accept 0.1 or 0.1 (m) allow 1 mark for answer of 9 (with or without working) award full marks for correct answer without working.	(2) AO2

Q2.

Question number	Answer	Additional guidance	Mark
	(sum of) the clockwise moments = (sum of) the anticlockwise moments	moment of magnet = moment of modelling clay moments are equal (size)	(1) AO1

Question Number:	Answer	Additional Guidance	Mark
	a description to include: method of producing temporary induced magnetism (1) method of demonstrating the magnetic properties of the temporary magnet (1) method of demonstrating magnetic effect is temporary (1)	place iron near / in contact with magnet / in magnetic field OR use magnet to pick up one paper clip OR use magnet to make iron a temporary magnet paper clip(s) attracted to iron OR use first paper clip to pick up another paper clip remove magnet and paper clips no longer attracted / fall off OR wait some / short time and iron bar no longer picks up / attracts paper clips	(3) AO 1 2

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Q5.

Question number	Answer	Mark
(a)	D	(1)

Question number	Answer	Mark
(b)	C	(1)