Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic : 12_Magnetism and the motor effect

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
(i)	S N	allow s or south north	(1)

Question number	Answer	Additional guidance	Mark
(ii)	an explanation linking two from (strength of magnetic) field /force (1) (depends on) distance from the magnet (1)	 (magnets) attract / repel force / field is weaker when further away (from magnet) or reverse argument lines of force are further apart	(2)

Question number	Answer	Additional guidance	Mark
(iii)	a description to include four from move brick towards the car (1) until car (just) starts to move (1) measure distance of brick from car/magnet (1) repeat with 2 magnets (1) compare distances (for one magnet and for two magnets) (1) detail about procedure (1) conclusion or prediction (1)	 change distance between car and brick measure how close car gets to the brick how to attach second magnet(s) how to measure distance where to measure take several readings and find average if distance is bigger then it works	(4)

Q2.

Question number	Answer	Additional guidance	Mark
(i)	the Earth/world/planet has a magnetic field / core(1)	Earth/world/planet has a north (and south) pole	**(1)** **AO3**

Question number	Answer	Additional guidance	Mark
(ii)	direction (of the field) has changed / rotated (1) (strength of the) field has **increased** (1)	(from 0 to) 36° from N to NE field is stronger (changed by) 16.52 (μT) numbers have increased (from 46.67 to 63.19)	**(2)** **AO3**

Question number	Answer	Additional guidance	Mark
(iii)	a description including **three** from use of equipment to measure distance (1) ruler / tape measure obtain a measurement (1) measure / record strength of the field (at a certain point) change the conditions (1) move the phone / magnet (to a different location) process the results (1) e.g. • draw a diagram • make a table • compare results/values • see when (field) stays constant	 measure the distance between phone and magnet rotate the phone/magnet	**(3)** **AO3**

Q3.

Question number	Answer	Mark
	An answer that provides a description by making reference to: • (P) moves / spins (1) • (the two S-poles) repel / N(-pole) and S(-pole) attract (1)	**(2)**

Q4.

Question number	Answer	Additional guidance	Mark
	An answer that combines the following points of understanding to provide a logical description: • plotting compass placed on card near wire and pencil mark made near N pole of compass (1) • move compass so S pole is above pencil mark and keep repeating this until arrive at starting point (1)	allow sprinkle iron filings on card tap card to allow filings to align with field	**(2)**