Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic : 9_Forces and their effect

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

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
	An answer that combines the following points of understanding to provide a logical description: named force (acting at a distance) (1) situation (1)	 e.g. magnetic force between two (magnetic) poles	(2)

Q2.

Question number	Answer	Additional guidance	Mark
	move the (position of) the (0.050 N) weight (1) to the other side of the pivot/3.6 cm from the magnet (1)	adjust mass of modelling clay reduce (mass of modelling clay) by taking some away add (additional) weight between pivot and magnet scores 2 marks	**(2)** **AO3**

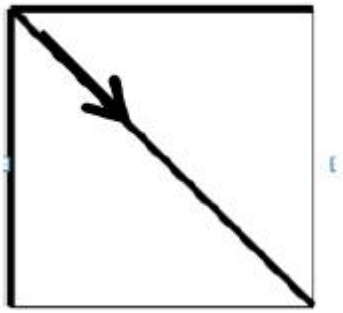
Q3.

Question number	Answer	Additional guidance	Mark
	any **three** from	marks can be awarded from a correctly labelled diagram	**(3)** **AO1**
	magnetic **fields** interact (1)	magnets are in each other's magnetic **field**	
	(force due to) repulsion (between magnets) (1)	repel / push away	
	(repulsion) force upwards (on upper magnet) (1)		
	weight / gravitational force (downwards on upper magnet) (1)	accept gravity (acts downwards)	
	forces equal size / in equilibrium (1)	forces are balanced	
		ignore references to charge	

Q4.

Question number	Answer	Additional guidance	Mark
	(upward) force increases with speed (1) relationship is non-linear (1)	allow reverse argument changing rate / increases exponentially/ initially no upward force (until 1000 turns per minute)	**(2)**

Q5.

Question number	Answer	Additional guidance	Mark
	Scale drawing two lines at right angles (1) a correct scaling (for example 10kN equivalent to 1 cm) / a completed square or triangle(1) diagonal in correct direction (1) 28 kN (1)	 judge by eye accept answers from 25 kN to 30 kN accept use of Pythagoras award full marks for correct answer without working.	**(4)**

Q6.

Question number	Answer	Mark
(i)	• two vector arrows at rights angles representing the forces (1) • two vector arrows in proportion (1) examples: 	(2)

Question number	Answer	Additional guidance	Mark
(ii)	• drawing shows a completed triangle or parallelogram (1)  • Evaluation 3.6 N (1)	±0.2 N may be calculated using Pythagoras theorem	(2)