Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : Waves

Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
	substitution (x) =330 x 4.0 evaluation 1300 (m)	 accept 1320 (m) award full marks for correct answer without working.	**(2)** **AO2**

Downloaded from www.merit-minds.com

Q2.

Question Number	Answer	Additional guidance	Mark
	substitution (1) 0.8 =f x 4.0	(f =) $\frac{0.8}{4.0}$ allow correct substitution into seen incorrect rearrangement	**(3)** **AO2**
	rearrangement and evaluation (1) 0.2 (Hz)	award 2 marks for the correct answer with no working	
	unit (1) Hz / s^{-1} / per sec	accept hz or hertz independent mark accept recognisable spelling	

Downloaded from www.merit-minds.com

Q3.

Question number	Answer	Additional guidance	Mark
	substitution (1) $330 = f \times 0.75$ rearrangement (1) $(f =) \frac{330}{0.75}$ evaluation (1) (f =) 440 (Hz)	substitution and rearrangement may be in either order. $f = \frac{v}{\lambda}$ if no other marks scored then award 1 mark for an answer that rounds to 0.0023 or 250 award full marks for the correct answer without working	**3** **AO2.1**

Downloaded from www.merit-minds.com

Q4.

Question Number	Answer	Additional guidance	Mark
	substitution (1) 300 : 1500 evaluation (1) 1:5	 $\frac{300}{1500}$ 0.2 OR $\frac{1}{5}$ ignore any units award full marks for the correct answer without working allow 1 mark for either 5:1 OR 5	**(2)**

Downloaded from www.merit-minds.com

Q5.

Question number	Answer	Additional guidance	Mark
	substitution and unit conversion (1) $470 \times 10^{-9} \times 6.30 \times 10^{14}$ answer (1) 2.96×10^{8} (m/s)	award full marks for correct numerical answer without working ecf unit conversion	**(2)**

Downloaded from www.merit-minds.com

Q6.

Question Number:	Answer	Additional guidance	Mark
	recall and substitution (1) (v =) 0.25 x 1.5 evaluation (1) 0.38 (m/s)	 accept 0.375 or 0.37 (m/s) accept 37.5, 37 or 38 for 1 mark only award full marks for the correct answer without working	**(2)**

Downloaded from www.merit-minds.com

Q7.

Question number	Answer	Additional guidance	Mark
	uses data taken from x axis (1) 28(cm) (1)	award full marks for correct answer without working	**(2)** **AO3**

Downloaded from www.merit-minds.com

Q8.

Question number	Answer	Additional guidance	Mark
(i)	C wave front is longer		(1)

Question number	Answer	Additional guidance	Mark
(ii)	substitution and rearrangement (1) t = 4.0 / 0.70 evaluation (1) 5.7 (s)	 accept 6 (s)	(2)

Question number	Answer	Additional guidance	Mark
(iii)	2/3 0.67 m		(1)

Question number	Answer	Additional guidance	Mark
(iv)	An explanation that combines identification - application of knowledge (1 mark) and reasoning/justification - application of understanding (1 mark): the cork is oscillating at right angles / perpendicular (1) to the direction of travel of the wave / transfer of energy(1)		(2)

Downloaded from www.merit-minds.com