Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : 5_Light and Electromagnetic Spectrum

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

Mark Schemes

1

	Answer	**Acceptable answers**	**Mark**
	Substitution 1.7 × 8 (1) Evaluation 14 (cm/s) (1)	13.6 (cm/s) give full marks for correct answer, no working Power of 10 error max. 1 mark.	**(2)**

Q2.

Question number	**Answer**	**Additional guidance**	**Mark**
(i)	at least one arrow in the direction QS (1) two arrows in opposite directions (1)	allow arrows parallel to QS independent mark  scores 2 marks two arrows in opposite directions but perpendicular to QS scores 1 mark maximum	**(2)**

Question number	Answer	Additional guidance	Mark
(ii)	converts 7 km/s to 7000 m/s (1) substitution (1) $\frac{7(\times 10^3)}{12}$ evaluation (1) 580 (m)	7000 seen (1) allow numbers that round down to 580 such as 583.33.... 5.8 to any incorrect power of ten scores 2 marks award full marks for the correct answer without working	**(3)**

Q3.

Question Number	Answer	Additional guidance	Mark
(i)	recall speed = $\frac{\text{distance}}{\text{time}}$	accept any correct rearrangement or use of s, d and t may use v for speed and x for distance ignore use of triangles	**(1)** AO 1 1

Question Number	Answer	Additional guidance	Mark
(ii)	substitution (1) (speed) = $\frac{220}{0.7(0)}$ evaluation (1) 310 (m/s)	allow ecf from part (i) for this mark only allow any numbers that round to 310 e.g. 314 award full marks for the correct answer without working	(2) AO 2 1

Q4.

	Answer	Additional guidance	Mark
(i)	12		(1) AO1

	Answer	Additional guidance	Mark
(ii)	$\frac{42}{12}$ (1) 3.5 (cm) (1)	 ecf from2ai allow 0.035 for 1 mark award full marks for the correct answer without working	(2) AO1

	Answer	Additional guidance	Mark
(iii)	A description to include: **either** time a crest/ripple/wavefront (1) (moving) between **P** and **Q** (1) use (wave speed =) distance (1) time **or** count number of crests /ripples /wavefronts passing (eg P) (1) in a given time (to find f) (1) use (v =) f λ (1)	 allow 'how long it takes' allow 'wave' for crest allow – over the 42 cm over a (set) distance allow waves if no other mark scored measure frequency for 1 mark	**(3)** **AO1**

Q5.

Question number	Answer	Additional guidance	Mark
	wavelength gets shorter / decreases		**(1)**