

Name of the Student: _____

Max. Marks : 17 Marks

Time : 17 Minutes

Mark Schemes

Q1.

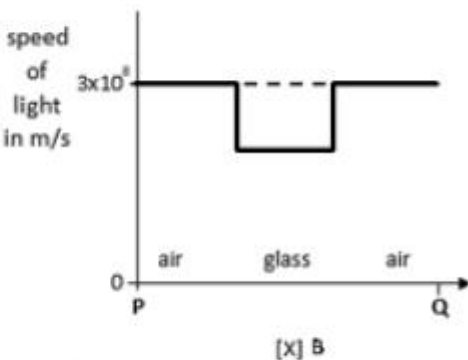
Question	Answer	Mark
(i)	A all surfaces the laws of reflection always apply.	1 AO1.2

Question	Answer	Additional guidance	Mark
(ii)	an explanation linking three from mark the position of the mirror / mark the position of the rays of light/ place all apparatus on a sheet of paper (1) put in the normal to the mirror which is perpendicular to mirror (at the point of reflection) (1) identify/label angle of incidence and angle of reflection from the normal (1) use a protractor (to measure the angles of incidence / reflection / to find the normal) (1)	marks can be given for additions to diagram may be shown on diagram may be shown as i and r on diagram do not allow a mark for the use of angle of refraction	3 AO3.3

Question Number	Answer	Mark
(i)	 ☐ B The only correct answer is B A is not correct because it has a smaller power than B C is not correct because it is a diverging lens D is not correct because it is a diverging lens	(1)

Question Number	Answer	Additional guidance	Mark
(ii)	rearrangement and substitution (1) $\frac{1}{5}$ unit conversion and evaluation (1) 20 (cm)	award full marks for the correct answer without working accept 0.2 for one mark only	(2)

Q3.

Question number	Answer	Mark
CS3	 B is the correct answer	(1) A03
	A is not correct because the velocity in air is the same before and after the glass C is not correct because the velocity is constant inside the glass D is no correct because the velocity in glass is not greater than the velocity in air	

Q4.

Question Number	Answer	Mark
	C red The only correct answer is C red A is not correct because blue has a shorter wavelength than red B is not correct because green has a shorter wavelength than red D is not correct because yellow has a shorter wavelength than red	(1)

Q5.

Question number	Answer	Additional guidance	Mark
	D a TV remote control		(1)

Q6.

Question number	Answer	Additional guidance	Marks
	B radio waves	Multiple choice	(1)

Q7.

Question Number	Answer	Additional guidance	Mark
	in this order infrared (wave) / IR (1) micro(wave) (1) radio (wave) (1) gamma (ray/wave)(1)	accept μ (wave) accept γ not X	(4) AO 1 1

Q8.

Question Number	Answer	Additional guidance	Mark
	a description to include: use a thermometer (1) measure temperature at regular intervals (1)	temp. sensor datalogger it must be clear that it is a number of readings – not just 2 eg measure temperature over time	(2) AO 1 2