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

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

Name of the Student:_____
Max. Marks : 21 Marks **Time : 21 Minutes**

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Marks
	B frequency is the number of waves arriving at the beach per second		(1)

Downloaded from www.merit-minds.com

Q2.

Question number	Answer	Additional guidance	Marks
	D sound		**(1)**

Downloaded from www.merit-minds.com

Q3.

Question number	Answer	Additional guidance	Mark
	B A, C and D are incorrect because energy is transferred but air is not transferred		**1** **AO1.1**

Downloaded from www.merit-minds.com

Q4.

Question number	Answer	Additional guidance	Marks
(i)	C 12 cm		(1)

Question number	Answer	Additional guidance	Marks
(ii)	An answer that combines the following points of understanding to provide a logical description: • measure across several spots (1) • obtains the wavelength e.g. by dividing (the measurement) by the appropriate number (1)	allow idea of measurement in mm / use a ruler with millimetre divisions allow 'put the ruler closer to the bread' ignore 'repeat the test'	(2)

Downloaded from www.merit-minds.com

Q5.

Question Number	Answer	Mark
(i)	**B** the line shows the amplitude **A** is incorrect the line shows twice the amplitude **C** is incorrect the line shows half the wavelength **D** is incorrect the line shows the wavelength	**(1)** **AO1**

Question Number	Answer	Additional guidance	Mark
(ii)	an explanation linking vibration/oscillation (1) perpendicular / at right angles / 90° (to the direction of travel of the wave/direction of energy transfer) (1)	accept up and down	**(2)** **AO1**

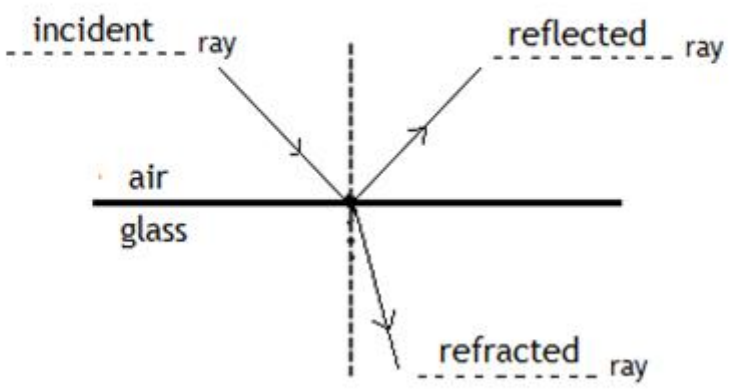
Downloaded from www.merit-minds.com

Q6.

Question number	Answer	Additional guidance	Mark
	A amplitude B, C and D are incorrect because they are independent of intensity		**1** **AO1.1**

Downloaded from www.merit-minds.com

Q7.

Question Number:	Answer	Additional guidance	Mark
		All 3 labels correct 3 marks 2 labels correct 2 marks 1 label correct 1 mark	**(3)**

Downloaded from www.merit-minds.com

Q8.

Question Number	Answer	Acceptable answers	Mark
(a)	normal (1)	normal line	(1)

Question Number	Answer	Acceptable answers	Mark
(b)(i)	plot the points: • 0,0 (1) • 6,9 (1)	allow within one square tolerance. Bod if 0,0 not clearly visible but must be able to see a plotted point for 6,9 If they plot more than 2 points, take a mark off for each incorrect one plotted.	(2)

Question Number	Answer	Acceptable answers	Mark
(b)(ii)	straight line through both points joining existing curve (1)	Reject multiple lines and unreasonably wavering lines. allow ecf from wrongly plotted points, including curves if plausible	(1)

Question Number	Answer	Acceptable answers	Mark
(b)(iii)	42° (1) +/- 0.5°		(1)

Question Number	Answer	Acceptable answers	Mark
(c)(i)	diagram showing: • reflection (1) • angle of incidence = angle of reflection (1)	reject (for this marking point) with an additional partial refraction / ray along boundary judge by eye allow angles marked as equal	(2)

Question Number	Answer	Acceptable answers	Mark
(c)(ii)	The idea that it enters along the normal	At 90 ° to the surface / at right angles to the surface / along a radius / perpendicular to the tangent / hits straight on reject 'goes through centre of glass'	(1)

(Total for Question = 8 marks)

Downloaded from www.merit-minds.com