

Question number	Answer	Notes	Marks
5 (a)	<p>D;</p> <p>The only correct answer is D</p> <p>A is not correct because it's the wavelength</p> <p>B is not correct because it's half the wavelength</p> <p>C is not correct because it's twice the amplitude</p>		1
(b)	<p>evidence of frequency being number of waves per unit time; evaluation; matching unit;</p> <p>e.g. (f =) 18/12 (f =) 1.5 Hz</p>	<p>explicit or implied by working</p> <p>must match units used in calculation</p> <p>allow hertz, s^{-1}, (waves) per second</p> <p>allow any suitable unit of frequency for 1 mark if no other mark scored</p>	3
(c)	<p>any 1 of: named part of the EM spectrum; light; (waves on a) rope / string; (waves on a) slinky if appropriately described;</p>	<p>allow 'EM waves'</p> <p>allow (secondary) seismic wave</p>	1

<p>(d)</p>	<p>vibrations / oscillations / disturbance; (are) parallel or perpendicular to direction of energy transfer / wave (travel/movement); correct identification of <u>both</u> types; e.g.</p> <div data-bbox="395 504 1034 705"> <p>① transverse oscillations of wave direction of wave</p> <p>② longitudinal oscillations of wave direction of wave</p> </div> <p>gets 3 marks</p>	<p>allow suitably labelled diagrams</p>	<p>3</p>
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Total for question 5 = 8 marks