
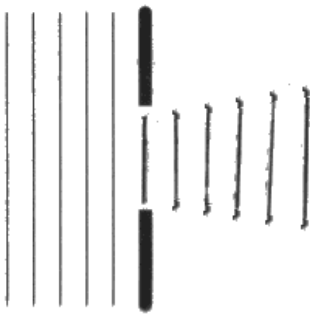


Question number	Answer	Notes	Marks
3 (a)	<p>left diagram: at least 3 correctly curved wavefronts centred on the gap; spacing of wavefronts is consistent with original wavefronts;</p>  <p>right diagram: evenly spaced planar wavefronts (curved at the edges);</p> 	<p>ignore where wavefront lines start and finish DOP judge spacing by eye</p> <p>reject if any wavefront line is as long as original wavefront lines ignore spacing of wavefronts</p>	3
(b) (i)	(wave) speed = frequency x wavelength;	allow rearrangements and use of standard symbols e.g. $v = f \times \lambda$ condone s for speed	1
(b) (ii)	<p>substitution / rearrangement; evaluation of frequency;</p> <p>evaluation of wavelength to at least 2 significant figures;</p> <p>e.g. $6.0 = f \times 4.0$ $f = 1.5 \text{ (Hz)}$ $(\lambda_2 =) 2.7 \text{ (cm)}$</p>	<p>allow alternative methods e.g. $6 / 4 = 1.5$ gains both method marks</p> <p>allow 2.67, 2.6 recurring condone 2.6, 2.66 etc. do not allow 3.0</p>	3

Total for question 3 = 7 marks