

Question number	Answer	Notes	Marks
8 (a) (i)	Any one of- MP1 Speed / velocity (in a vacuum); MP2 Transverse (wave); MP3 Electromagnetic (wave); MP4 A general wave property;	e.g. reflection, refraction, diffraction, transfer energy	1
(ii)	Any two of- Frequency; Wavelength; Energy;	Any wavelength or frequency relationship if stated must be correct	2
(b) (i)	There are more than two values; Reference to shape/slope/ramp(s);	Accept peaks not all same height not just 1 and 0 Accept RA Ignore "analogue"	2
(ii)	MP1 More than one gap measured / averaging seen; MP2 Value of 1.15 or 1.35 (s);	Allow 2 marks for bald answers of: 1.15 or 1.35 (s) Allow 1 mark (MP1) for bald answers of: 1.2, 1.25, 1.4, 1.55 (s)	2
(iii)	Calculation of frequency (from $f = 1/T$); Unit to match value; e.g. $f = 1/1.15 = 0.87$ Hz	Allow e.c.f from time value given in (b)(ii) $1/1.35 = 0.74$	2

Total 9 marks