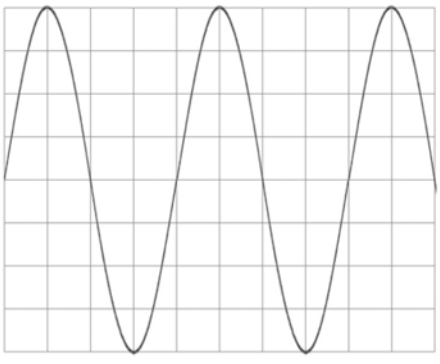
Question number	Answer	Notes	Marks
8 (a) (i)	microphone;		1
(ii)	measure number of squares for a number of complete cycles / waves and find average number of squares for one cycle; multiply number of squares for one cycle by the time base / eq;	condone 'find number of squares for one cycle' accept 'period' for 'cycle' condone use of 'wavelength' for 'period' or 'cycle' ignore reference to T = 1/f	2
(b) (i)	evaluation of time period of wave; substitution into f = 1 ÷ T; evaluation of frequency; conclusion consistent with frequency value; e.g. time period = 4×10^{-5} s f = 1 ÷ 4×10^{-5} f = 25 000 (Hz) (therefore) sound cannot be heard (since frequency is greater than 20 000 Hz)	reject if candidate uses y-axis allow ecf if frequency is incorrect conclusion must be consistent with candidate's frequency value to be awarded the mark	4
(ii)	wave has amplitude of 4 squares; wave has time period of 4 squares; e.g. 		2

Total for Question 8 = 9 marks