EQ2: Acoustic black box marking Scheme			
Section		**Partwise marks**	**Total**
A1	**finding expression of $x_(t)$ and $y_(t)$**		**0.2**
A2	**Plotting graph of $f_{\min}$ vs t**		**1.2**
	Choice of scale (70% coverage)	0.2	
	Both axis labelled with proper units	0.2	
	More than 8 points labelled correctly	either 0.4	
	Atleast 5-7 points plotted	or 0.2	
	Less than 5 points plotted	**No Credit**	
	Data table		
	10 points reported correctly	either 0.4	
	6-9 points reported correctly	or 0.2	
	Less than 6 points reported	**No Credit**	
A3	**Evaluating expression of eventual $f_{\min}$**(No partial marking)		**1**
A4	**Determination of source's coordinates**		**1.4**
	idea of triangulation (i.e. getting the equations correctly)	**1**	
	correct value of Δt_{x1} and Δt_{x2}	0.1+0.1	
	Final calculation of X_A and Y_A	0.1+0.1	
A5	**Calculating f_0, ω, R, v_s**		**2.1**
	Logic asymptotic values	0.3	
	Getting the retarded time expression correctly	0.6	
	Value of ω	0.2	
	expression of $f_{\max}$ and $f_{\min}$ for source moving away	0.3	
	expression of $f_{\max}$ and $f_{\min}$ for source moving towards	0.3	
	Determination of correct $f_{\max}$ and $f_{\min}$ for calculation	0.2	
	If all values correct f_0, R,v_s	either 0.2	
	If only two or one value is correct	or 0.1	

ABB Marking Scheme			
A6	**Finding angle β**		**2**
	Calculation of largest maximum frequency at some angle	0.6	
	Reporting data of extrema at various θ	0.4	
	Determination of the coordinates of D	0.4	
	Determination of Coordinates of E	0.4	
	Final calculation of β	0.2	
A7	**Finding centre coordinates**		**2.1**
	Expression of $f(t')$	1	
	If t' and t are same	-0.5	
	Determination of α	0.4	
	Determination of ϕ	0.4	
	coordinates of centre of circle	0.3	