Question Number	Scheme	Marks
1(a)	$F = 5\cos 30^\circ$ oe (Resolving perp to string or from triangle of forces or Lami's Theorem: $\frac{F}{\sin 120^\circ} = \frac{5}{\sin 90^\circ}$) **OR** $\frac{F\sin 30^\circ}{\sin 60^\circ}\cos 60^\circ + F\cos 30^\circ = 5$	M1 A1
	$F = \frac{5\sqrt{3}}{2}$ 4.3 or better	A1
	N.B. $F\sin 30^\circ = T\sin 60^\circ$	(3)
1(b)	$T = 5\sin 30^\circ$ oe (Resolving along string or from triangle of forces or Lami's Theorem: $\frac{T}{\sin 150^\circ} = \frac{5}{\sin 90^\circ}$) **OR** $T\cos 60^\circ + \frac{T\sin 60^\circ}{\sin 30^\circ}\cos 30^\circ = 5$	M1 A1
	$T = \frac{5}{2}$ (N)	A1
	N.B. $F\sin 30^\circ = T\sin 60^\circ$	(3)
		(6)
	Notes for question 1	
1(a)	M1 Complete method to obtain equation in F only - correct no. of terms, condone sign errors and sin/cos confusion (If they resolve horizontally and vertically, they will need to eliminate T to obtain this M mark, with the usual rules applying to each equation they use) **N.B.** If they do (b) first and find an incorrect value for T and then use that value in (a), using an equation that would earn M1, with usual rules, to find F, give M1A0A0 in (a). M0 if using wrong angles e.g. 45°	
	A1 Correct equation	
	A1 cao (4.3301..)	
1(b)	M1 Complete method to obtain equation in T only - correct no. of terms, condone sign errors and sin/cos confusion (If they resolve horizontally and vertically, they will need to eliminate F to obtain this M mark, with the usual rules applying to each equation they use) **N.B.** If they find an incorrect value for F in (a) and then use that value in (b), using an equation that would earn M1, with usual rules, to find T, give M1A0A0 in (b). M0 if using wrong angles e.g. 45°	
	A1 Correct equation	
	A1 cao	