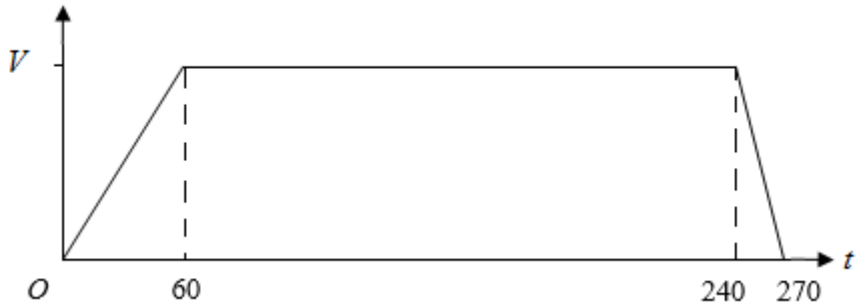
Question Number	Scheme	Marks
6(a)		B1 Shape B1 Figs. and V (2)
(b)	$4500 = \frac{(270+180)}{2}V$ OR $4500 = \frac{1}{2}60V + 180V + \frac{1}{2}30V$ $V = 20$	M1 A1 A1 (3)
(c)	$\frac{(T+T-60)}{2}\times 20 = 2250$ OR $\frac{1}{2}60.20 + (T-60).20 = 2250$ $T = 142.5$ s	M1 A2 **ft** A1 (4)
(d)	$T_1 = \frac{1}{4}\times 60$ $= 15$ $T_2 = 270 - \left(\frac{1}{4}\times 30\right)$ OR $240 + \left(\frac{3}{4}\times 30\right)$ $= 262.5$	M1 A1 M1 A1 A1 (5) **14**
	Notes	
6(a)	First B1 for a trapezium (not to scale) starting and finishing on the *t*-axis but B0 if solid vertical lines included	
	Second B1 for 3 figs. (60, 270 and use of 30 with a delineator or 240) and *V*. 270 can be implied by 3 correct delineators	
6(b)	M1 for a complete method to produce an equation, in *V* only, with the correct structure i.e. one trapezium or two triangles + rectangle or triangle + trapezium or trapezium + triangle or rectangle – two triangles = 4500 (allow 4.5 for the M mark) (M0 if a single *suvat* equation is used)	
	First A1 for a correct unsimplified equation	
	Second A1 for $V = 20$	
6(c)	M1 for a complete method to produce an equation, in *ONE* variable e.g. *t* where $t = (T - 60)$, with the correct structure i.e. one trapezium or triangle + rectangle or rectangle – triangle = 2250 (allow 2.25 for the M mark) (M0 if a single *suvat* equation is used)	
	First and second A1's for a correct unsimplified equation **ft on their 20** -1 each error	
	Third A1 for 142.5 (s) cao Accept 143.	
6(d)	First M1 for a complete method to give an equation in T_1 *only*	