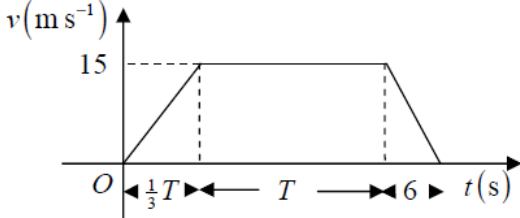
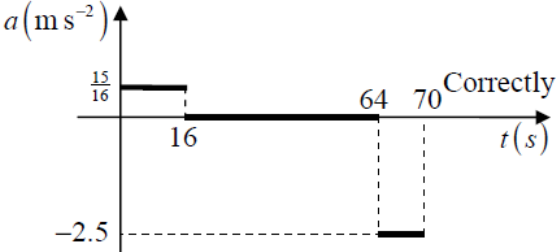


Daily Question

Day 2 Mechanics – Mark Scheme

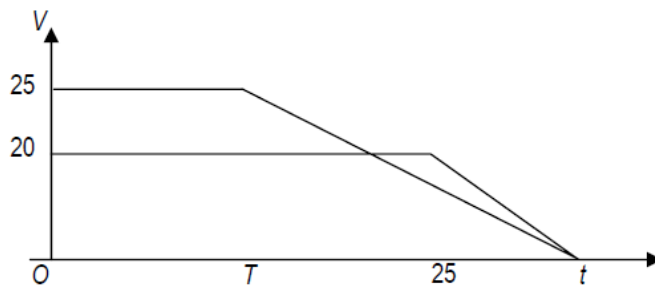
Question 1

(a)	$v = u + at \Rightarrow 0 = 15 - 2.5t$ $t = 6 \text{ (s)}$	M1 A1	(2)
(b)		Shape 15, T B1 B1	(2)
(c)	$\frac{1}{2} 15 \left(\frac{4}{3} T + 6 + T \right) = 885$ $\frac{7}{3} T = 118 - 6$ $T = 112 \times \frac{3}{7} = 48$	ft their 6 M1 A1ft	(4)
(d)	$a = \frac{15}{\frac{1}{3} T} = \frac{15}{16}, 0.9375, 0.938, 0.94$	M1 A1	(2)
(e)		3 horizontal lines Correctly placed; no cts vert line -2.5, ft their 15/16 B1 B1 B1	(3)

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Question 2

(a)



Shape (both)
Cross
Meet on t -axis
Figures 25,20, T ,25

B1
B1
B1
B1

(4)

(b)

For Q : $20\left(\frac{t+25}{2}\right) = 800$
 $t = 55$

For P : $25\left(\frac{T+55}{2}\right) = 800$
solving for T : $T = 9$

M1 A1

DM1 A1

M1 A1

DM1 A1 (8)
[12]