Question	Scheme	Marks	AOs
7(i)(ii)	Using a correct strategy for solving the problem by setting up two equations in a and u only and solving for either	M1	3.1b
	Equation in a and u only	M1	3.1b
	$22 = 2u + \frac{1}{2} a 2^2$	A1	1.1b
	Another equation in a and u only	M1	3.1b
	$126 = 6u + \frac{1}{2} a 6^2$	A1	1.1b
	5 m s^{-2}	A1	1.1b
	6 m s^{-1}	A1ft	1.1b
			(7 marks)

Notes:

M1: For solving the problem by setting up two equations in a and u only and solving for either

M1: Use of (one or more) *suvat* formulae to produce an equation in u and a only

A1: For a correct equation

M1: Use of (one or more) *suvat* formulae to produce another equation in u and a only

A1: For a correct equation

A1: For correct accln 5 m s^{-2}

A1: For correct speed 6 m s^{-1} (The second of these A marks is an **ft** mark, following an incorrect value for u or a, depending on which has been found first)

N.B. Do not award the ft mark for absurd answers e.g. $a > 15$, $u > 50$

See alternative on the next page

ALTERNATIVE

Question	Scheme	Marks	AOs
7(i)(ii)	Using a correct strategy for solving the problem by obtaining actual speeds at two times and using a = change in speed / time taken	M1	3.1b
	Actual speed at $t = 1$ = Average speed over interval	M1	3.1b
	$22/2 = 11$	A1	1.1b
	Actual speed at $t = 4$ = Average speed over interval	M1	3.1b
	$104/4 = 26$	A1	1.1b
	$5\ \text{m s}^{-2}$	A1	1.1b
	$6\ \text{m s}^{-1}$	A1ft	1.1b
			(7 marks)

Notes:

M1: For solving the problem by obtaining two actual speeds and use of $a = (v - u)/t$

M1: Use of speed at half-time = av speed over interval to produce a speed at $t = 1$

A1: For a correct speed

M1: Use of speed at half-time = av speed over interval to produce a speed at $t = 4$

A1: For a correct speed

A1: For correct accln $5\ \text{m s}^{-2}$

A1: ft for correct speed $6\ \text{m s}^{-1}$ (This is an ft mark, following an incorrect value of a)

N.B. Do not award the ft mark for absurd answers e.g. $a > 15$, $u > 50$