Question	Scheme	Marks	AOs
5(a)	Equation of motion for A: $T = ma$	B1	3.3
	Equation of motion for B	M1	3.4
	$3mg - T = 3ma$	A1	1.1b
	Solve for T	M1	1.1b
	$T = \frac{3mg}{4}$ *	A1*	1.1b
		(5)	
5(b)	$V^2 = 2 \times \frac{3}{4} gh$	M1	2.1
	$V = \sqrt{\frac{3gh}{2}}$	A1	1.b
		(2)	
5(c)	e.g. ignores the mass of the string, ignores stretching of the string. B0 if any incorrect extras.	B1	3.5b
		(1)	
5(d)	V, since air resistance will reduce the acceleration of the particle(s) oe	B1	3.5a
		(1)	
			(9 marks)

Notes:

5(a)	B1	Correct equation
	M1	Correct terms and condone sign errors
	A1	Correct equation
	M1	Solve for T
	A1*	Given answer correctly obtained
		Note: whole system equation could replace one of these equations of motion.
5(b)	M1	Complete method to find equation in V, g and h
	A1	Correct expression
5(c)	B1	B0 if any incorrect extras are given or for an incorrect statement
5(d)	B1	cao