

ANSWER SHEET FOR PART B

QUESTION NUMBER	ANSWERS	MARKS (examiner's use)
1 (i) (a)	$T = m_1 g$	05
(i) (b)	$F = (m_1 + m_2 + m_3) \frac{m_1 g}{m_2}$	05
(ii) (a)	$a = \frac{m_1 g}{m_1 + m_2}$	05
(ii) (b)	$T = \frac{m_1 m_2 g}{m_1 + m_2}$	05

2.	$l = \sqrt[3]{\frac{qQR}{4\pi\epsilon_0 mg}}$	20
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3.	$B = 2\sqrt{\frac{2Vm}{e}} \frac{\sin \alpha}{d} \quad OR \quad B = 2\frac{m}{e} \sqrt{\frac{2Ve}{m}} \frac{\sin \alpha}{d}$	20
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