

Question number	Answer	Notes	Marks
8 (a) i	B a 1 kg mass would weigh more on Earth than on Uranus;		1
ii	C 4 N/kg;		1
b i	conversion into s; substitution into correct equation (no mark for equation); rearrangement; evaluation; e.g. $1350 = \frac{2 \times \pi \times r}{1820 \times 60}$ $r = \frac{1350 \times 1820 \times 60}{2 \times \pi}$ $= 23\,500\,000 \text{ (m)}$	factor of 60 seen $\text{orbital speed} = \frac{2 \times \pi \times \text{orbital radius}}{\text{time period}}$ 23 462 621(m) POT error loses one mark 391 000 gains 3 marks	4
ii	A		1

Total 8 marks