Question number	Answer	Notes	Marks
9 (a)	gravity		1
(b) (i)	6960 (km)		1
(ii)	equation quoted (NO MARK) conversion of km OR min; v = (2 x π x 6 960 000) / (96 x 60); 7600;	 ECF on (i) Allow for rounding errors	3
(c)	EITHER grav pe reduces when closer; (so) ke increases; because total energy conserved; OR gravitational attraction / field strength increases when closer; mass remains constant; so accelerates;	 Grav force increases so ke increases = 1 (mixing arguments) REJECT 'gravity higher' 'gravity stronger' ACCEPT 'pull of gravity' 'force of gravity'	3
(d) (i)	electromagnetic (spectrum)	Accept transverse (waves)	1
(ii)	Any **two** from X-rays have shorter wavelength; ORA X-rays have higher frequency; ORA X-rays have higher energy; ORA X-rays have greater penetration range; ORA X-rays have greater effects on living tissue; ORA	Idea of comparison must be there REJECT 'visible light can be seen' / eq	2