Question	Answer	Maximum Marks
II.1.	$E_G = -\frac{3}{5}\frac{GM^2}{R}$	**1.0**
II.2.	$R_{wd} = \frac{\hbar^2\pi^3}{6Gm_e 4^{2/3}}\left(\frac{3}{\pi}\right)^{7/3}\frac{2N_e{}^{5/3}}{M^2}$	**2.0**
II.3.	$R_{wd} = 2.28 \times 10^4$ km	**1.5**
II.4.	$r_{sep} = 2.13 \times 10^{-12}$ m	**1.0**
II.5.	$v \approx 10^8$ m. s^{-1}	**1.0**
II.6.	$M_c = \frac{3(5^3\pi)^{1/2}}{16m_p{}^2}\left(\frac{\hbar c}{G}\right)^{3/2}$	**1.5**
II.7.	Tick in appropriate box. Expand: ; Contract: √	**0.5**
II.8.	$M_c = 6.8\, M_S$	**1.5**