**Question #18319**

The centrifugal force $F=\frac{m v^2}{R}$ is equal to Lorentz force, which is equal to $F_e=e v B$ (the magnetic field is perpendicular to velocity). Hence, $m\frac{v}{R}=e B \Rightarrow R=\frac{m v}{e B}=0.0028 m$ . Here we used $m=9.11\cdot 10^{-31} kg, e=1.6\cdot 10^{-19} C$ .