Phys102 Assignment Cover Sheet

First Name:_____   Last Name:_____   Mark: _____

Student ID:_____   Date: _____   Section: _____

Phys102 Written Assignment #5

Textbook (Giancoli, SFU edition), page728, question #31.

31. Suppose the Earth's magnetic field at the equator has magnitude 0.50×10^{-4} T and a northerly direction at all points. Estimate the speed a singly ionized uranium ion $(m = 238 \text{ u}, q = e)$ would need to circle the Earth 5.0 km above the equator. Can you ignore gravity? [Ignore relativity.] $1 \text{ u} = 1.66 \times 10^{-27}$ kg.