9.   (a)   Light with wavelength 122 nm is incident on the surface of a metal. The electrons, which are **emitted with maximum kinetic energy**, enters a magnetic field the direction of which is normal to the velocity vectors of these electrons. The flux density of the magnetic field is 5×10^{-5} T. These electrons are found to describe a circular path of radius 15.8 cm in the magnetic field. What is the work function of the metal?   [5 marks]