

### Question 17928

From one side,  $F = m_e g$ , and from the other side (from field):  $F = E q_e$ . These forces are equal, so  $m_e g = E q_e \Rightarrow E = \frac{m_e g}{q_e}$ . Knowing  $g = 9.81 \text{ m/s}^2$ ,  $m_e = 9.11 \cdot 10^{-31}$ ,  $q_e = 1.6 \cdot 10^{-19}$ , obtain  $E \approx 5.6 \cdot 10^{-11} \text{ N/C}$ .