Soln: We apply the formula,

$$\boxed{E_n = \frac{n^2 \pi^2 h^2}{2mL^2}} \quad \text{or} \quad E_n = \frac{n^2 h^2}{8mL^2}$$

for $n = 1$

$$E_1 = \frac{h^2}{8mL^2}$$

$$E_1 = \frac{(6.63 \times 10^{-34})^2}{8 \times 9.11 \times 10^{-31} \times 10 \times 10^{-9}}$$

$$E_1 = \frac{(6.63 \times 10^{-34})^2}{8 \times 9.11 \times 10^{-31} \times 10 \times 10^{-9}}$$

$$= \frac{43.956 \times 10^{-68}}{728.8 \times 10^{-40}}$$

$$E_1 = 0.0603128 \times 10^{-28} \text{ joules}$$

$$E_1 (\text{in meV}) = \frac{0.0603128 \times 10^{-28} \text{ J}}{1.6 \times 10^{-19}}$$

$$\boxed{E_1 = 0.03769 \times 10^{-9} \text{ meV}}$$