

1) only vector quantity among the following-----

a) electric charge b) electric field intensity c) electric potential d) electric resistance

2) a seconds pendulum is taken to the moon where the value of G is a sixth of the value of earth. time period of the pendulum will be?

1) Solution:

b) electric field intensity

2) Solution

Time period of the pendulum on Earth is

$$T_E = 2\pi \sqrt{\frac{l}{g}}$$

Time period of the pendulum on the moon is

$$T_M = 2\pi \sqrt{\frac{l}{\frac{1}{6}g}}$$

$$\frac{T_M}{T_E} = \frac{2\pi \sqrt{\frac{l}{\frac{1}{6}g}}}{2\pi \sqrt{\frac{l}{g}}} = \frac{\sqrt{\frac{l}{\frac{1}{6}g}}}{\sqrt{\frac{l}{g}}} = \sqrt{\frac{g \cdot l}{l \cdot \frac{1}{6}g}} = \sqrt{6}$$

Time period of the pendulum on the moon will increase $\sqrt{6}$ times.