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ENG 221 ASSIGNMENT

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1. Using the concept of Newton's second law of motion, describe the magnitude and direction of the acceleration of an electron being shot horizontally into a closed space with a uniform field being directed upward.

Answer

According to Newton, an object will only accelerate if there is a net or unbalanced force acting upon it. The presence of an unbalanced force acting accelerate an object changing its speed, its direction, or both its speed and direction. Newton's second law of motion pertains to the behaviour of objects for which all existing force acting upon the object and the mass of the object. The acceleration of an object depends directly upon the net force acting on the object.

~~2. Electric field: its a space~~

2. Describe the electric field, magnetic field & electric current with respect to charges.

Answer

→ Electric field is a space surrounding a charged particle where the particle exerts electric force. When charged particles exerts electric force on each other, their electric fields interact.

→ Electric current is a stream of charged particles, such as electrons, moving through an electrical conductor or space. It is measured as the net rate of flow of electric charge past a region.

→ Magnetic field is a vector field that describes the magnetic influence on moving electric charges, electric current and magnet materials. It depends on strength of both magnets and their distance and direct to one another ~~one another~~