

PHYSICS

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- Price Rs. 175.00 each

MOTION

An object is said to be in motion with respect to another object if its position continuously changes with respect to these objects.

LINEAR MOTION

If all parts of a body move with the same speed in a straight or curved line.

Rectilinear Motion

Body changes its position in a straight line with respect to time.

Curvilinear Motion

Body changes its position with respect to time in a curved path.

ROTATIONAL MOTION

Distance of the moving object remain constant from a fixed point.

OSCILLATORY MOTION

To and fro movement along the same path is known as oscillation.

PERIODIC MOTION

Motion which repeats itself after regular intervals of time is called periodic motion.

OPTICAL INSTRUMENTS

TELESCOPE

BINOCULARS

MICROSCOPE

CAMERA

Eye and Its Defects

TRANSVERSE SECTION OF EYEBALL

Presbyopia

1. In old age, the eye loses its ability to focus on nearby objects.

2. The eye becomes short-sighted.

3. The eye becomes farsighted.

4. The eye becomes near-sighted.

Cataract

1. The lens of the eye becomes cloudy.

2. The eye becomes blind.

3. The eye becomes near-sighted.

4. The eye becomes farsighted.

Myopia

1. The eye becomes near-sighted.

2. The eye becomes farsighted.

3. The eye becomes blind.

4. The eye becomes near-sighted.

Hypermetropia

1. The eye becomes farsighted.

2. The eye becomes near-sighted.

3. The eye becomes blind.

4. The eye becomes near-sighted.

Astigmatism

1. The eye becomes near-sighted.

2. The eye becomes farsighted.

3. The eye becomes blind.

4. The eye becomes near-sighted.

Electric Generator

In an electric generator, mechanical energy is used to make a conductor rotate in magnetic field to induce electricity. It is based on the principle of electromagnetic induction explained by the Faraday's Law.

A.C. Generator

A.C. generator produces an alternating current (A.C.) which changes its direction of flow continuously. It is used in power stations to generate electricity.

D.C. Generator

D.C. generator produces a direct current (D.C.) which flows in one direction only. It is used in power stations to generate electricity.

Principle of Archimedes

A body immersed in a fluid is buoyed up by a force equal to the weight of the displaced fluid. This force enables the object to float or at least seem lighter.

Floating Log

Log floats because its density is less than water. It weighs less.

Sinking Rock

The rock sinks because its density is greater than water.

EXAMPLES OF ARCHIMEDES PRINCIPLE

Floating Ship

The ship floats because the average density of ship is less than that of water.

Balloons Rise High

The air balloons rise because the balloon's density is less than density of surrounding air.