Physics (New Book) - 9th Class Physics English Medium Chapter 4 Preparation

Q1. How dows a tight rope walker balane himself.

Ans 1: A tight rope walker balances himself by holding a bamboo stic which helps distribute his wieht evenly and lowers his center of gravity. This is done by appliyign the principle of moments to maintain stability.

Q2. Why are door handles installed far from the hinges.

Ans 1: Door handles are placed farther from the hinges to increase he moment arm. Which reduces the force needed to produce the required turning effect for opening or closing the door.

Q3. What are rectangular comonetns of a vector and their values.

Ans 1: The componetns of a force which are mutaually perpendicular to each other are called rectangular components.
i. Horizontal components Fx = Fcos 0
ii. Vertical component Fy = F sin 0

Q4. Define Unlike Parall;el Forces

Ans 1: Unlike Parallel Forces:
I the parallel forces are acting in the oppsoite direction, then they are called like parallel forces. The resultant of unlike parllel force is the differecne between the magnitudes of the forces and act it the dirction of the larger force.
Example:- Two people pushing a table from opposite sides with unequal forces.

Q5. Thick of a body which is at rest but not in equilibrium.

Ans 1: This is not a single body in the unverse which is at rest but not in equilibirum.

Q6. Define Centre of Gravity.

Ans 1: Centre of gravity is that point where total weight of the body appears to be acting vertically down ward If a body is supported at its center of gravity, it remains balanced without rotaiting.

Q7. What is stable equilibrium.

Ans 1: A body is said to be in a state of stable equilibrium. if after a slight tilt, it comes back to its orignal position.

Q8. Define resolution of forces.

Ans 1: The mothod of finding rectangular components of a force or any vector.This is also called as resolution of forces.

Q9. What is the line of action of a force.

Ans 1: The line of actionof a force is an imaginary line along the direction fo the forces application. extengidng infinitely in both directions.

Q10. Define rigd body.

Ans 1: If the distance between two points of the body remains the same under the action of a force. It is called a rigid body.
