Physics (New Book) - 9th Class Physics English Medium Chapter 3 Preparation

Q1. why do passengers fall outward of the bus when a bus takes a sharp turn

Ans 1: When bus takes a sharp turn the passengers fall in the outward direction it is due to the inertia that they want to continue their motion in a straight line and thus fall outward.

Q2. What is the difference between action and reaction

Ans 1: Action: The force exerted by external agency on a system is called action.

Ans 2: Reaction: Response of the system to the force exerted by the external agency is called reaction.

Q3. Why is the law of conservation of momentum important

Ans 1: Rockets and jet engines also work on the same principle. With the help of law of conservation of momentum it is possible to calculate force, velocity, acceleration of a body. Many elementary particles are discovered by using law of conservation of momentum.

Q4. What is meant by tension in a string

Ans 1: The force acting along a string is called tension in a string

---

Q5. What do you mean by skidding ?

Ans 1: Motion of wheel without rotation is called skidding.

Q6. What is meant by dynamics?

Ans 1: The branch of mechanics that deals with study of motion of an object and the cause of its motion is called dynamics.

Q7. Writer two disadvantages and two disadvantages of friction.

Ans 1: Advantages of friction: It cannot not written if there would be no friction between paper and pencil
Friction enables us to walk on ground We cannot run on a slippery ground because it offers very little friction.

Ans 2: Disadvantages of friction: Friction is undesirable when moving with high speeds because it opposes the motion and thus limits the speed of moving objects
Most of our useful energy is lost as heat and sound due to the friction between various moving parts of machines.

Q8. Find the acceleration that is produced by a 20N force in a mass of 8 kg

Ans 1: Given Data; m= 8kg
F=20 N

Ans 2: Required: a=?

Ans 3: Solution : F=ma

Q9. Define newton, Circular motion?

Ans 1: Remember that Newton's Second law of Motion States that force is equal to mass times acceleration, and uniform circular motion refers to perfectly circular motion around a center point.

Q10. What is an Atwood machine

Ans 1: Atwood machine is an arrangement of two objects of unequal masses. Both the objects are attached to the ends of a string. The string passes over a frictionless pulley. The arrangement is sometimes used to find the acceleration due to gravity.