

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

Q1. Which shoes is better for jugging

Ans 1: The shoes whose grip is strong on ground is better for jugging these shoes provide more friction for strong grip on road and prevent to falling

Q2. Describe two situations in which force of friction is needed

Ans 1: We cannot rite without friction between paper and the pencil We cannot walk without friction Friction enables us to walk on the ground.

Q3. Describe ways to reduce friction.

Ans 1: The friction can be reduced by

Making the sliding surface's smooth

Making the fast moving objects a streamline shape (fish shape) such as cars, aero planes etc. This causes the smooth flow of air and thus minimizes air resistance at high speeds.

Lubricating the sliding surfaces.

Using ball bearings or roller bearings because the rolling friction is lesser than the sliding friction.

Q4. How can you relate a force with the change of momentum of a body

Ans 1: When a force acts on a body it produces acceleration in the body and it will be equal to the rate of change of momentum of the body.

Q5. Define centripetal force and centrifugal force.

Ans 1: Centripetal force: Centripetal force is a force that keeps a body in a circle.

Equation: F=mv/r

Ans 2: Unit: The SL unit of centripetal force is Newton (N)

Ans 3: Centrifugal force: Centrifugal force is a reaction of centripetal force that pulls the body outward the circle

Ans 4: Unit: The SI unit of centrifugal force is Newton (N)

Q6. 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.
(Q7. Define Cream separator:

Ans 1: Most modern plants use a separator to control the fat contents of various product. A separator is a high-speed spinner. It acts on the same principle of centrifuge machines.

Q8. In which case it is easy for the tireto roll over? Rough ground

Ans 1:

Rough ground:

In case of rough ground, it is difficult for the type the roll over because rough surface offers more friction.

Smooth ground:

Incase of smooth ground it is easier for the type to roll over because smooth surface offer less friction.

Q9. 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.

Q10. What will be the tension in a string that is pulled from its ends by two opposite forces 100N each

Ans 1: Because force are acting at opposite direction, therefore the net tension is 100N