

SA-1 WORKSHEET

CLASS-IX

SUBJECT-PHYSICS

1-Define the terms rest and motion. Give one example of each.

2-What is meant by uniform motion? Give one example.

3-When is a body said to have

a) uniform velocity?

b) uniform acceleration?

4-Distinguish between speed and velocity.

5-What do you mean by the term retardation? Give one example.

6-Deduce an expression for distance travelled by a body with a uniform acceleration in a given time.

7- Draw a distance-time graph of a body

a) moving with uniform velocity

b) moving with variable velocity.

8-A circular track has a circumference of 3140m with AB as one of its diameters. A scooter moves from A to B along a circular path with uniform speed of 10m/s. Find

a) distance covered by the scooterist

b) displacement of the scooterist

c) time taken by the scooterist in reaching from A to B.

9-Describe balanced and unbalanced forces.

10-State the various effects produced by a force.

11-State Newton's three laws of motion.

12-What is the relationship between mass and inertia? Give the SI units of mass and inertia.

13-Define inertia of direction. Give one example.

14-Name the physical quantity which has the combined effect of mass and velocity and give its SI units.

15-A body of mass 5kg moving with a uniform velocity of 10m/s. It is acted upon by a force of 20N. What will be its velocity after 1s?

16-State Law of conservation of momentum.

17-A toy car of mass 250g is moving with a velocity of 5m/s. Find its momentum.

18-Distinguish between gravitation and gravity.

19-State Newton's universal Law of gravitation, hence define universal gravitational constant. Give the value of G.

20-Calculate the force of gravitation between two bodies each of mass 70kg and placed 14cm apart. (Take $G=6.67^{-11}\text{Nm}^2/\text{kg}^2$)