

SUMMER VACATION HOLIDAY

HOME-WORK

Class 9

PROJECT:

Q1. Prepare 20 MCQs from the chapter "Matter in our surrounding" and Motion.

Q2. Ice, water and steam are three states of a substance and not different substances. Justify?

Q 3. Define the followings:-

a) Density b) Kinetic Energy c) diffusion d) sublimation e) Latent Heat of vaporization

Q4. Identify the kind of motion in the following cases:

a) A car moving with constant speed turning around a curve.

b) An electron orbiting around nucleus.

Q5. Derive three equations of motion using graphical method.

Q6. A train starting from rest attains a velocity of 72km/hr in 5 minutes, assuming the acceleration is uniform,

find a) The acceleration b) The distance travelled by the train for attaining this velocity.

Q7. Velocity time graph for the motion of an object in a straight path is a straight line parallel to the time axis.

a) Identify the nature of motion of the body.

b) Find the acceleration of the body.

c) Draw the shape of distance-time graph for this type of motion.

Q8. a) What do you understand by mass of a body?

b) Is mass a scalar or vector? State its SI units.

Q9) The rate of evaporation of a liquid increases on heating. Explain.

Q10. with the help of a labelled diagram, describe in brief an activity to show sublimation of ammonium chloride?

Q11. starting from a stationary position, rehan paddles his bicycle to attain a velocity of 6m/s in 30s. then he applies brakes such that the velocity of the bicycle comes down to 4 m/s in the next 5s. calculate the acceleration of the bicycle in both the cases?

Q12. compare in tabular form the properties of solids, liquids and gases with respect to

i)Shape ii)Volume iii)Compressibility iv)Diffusion v)Fluidity or rigidity

Q13) name the SI unit of measuring temperature.

The boiling point of water is 100°C under atmospheric pressure. Convert this temperature in kelvin.

Q14. A bus travels a distance 120km with a speed of 40km/hr and returns with a speed of 30km/h. calculate the average speed for the entire journey.

Q 15. Write differences between the followings:-

a) Distance and displacement b) speed and Velocity c) uniform and non- uniform motion

* Learn Chapter 1 and Chapter 8