



**IMPORTANT QUESTIONS FOR SECTION B**

**IX PHYSICS**

1. Define equilibrium and State two conditions of equilibrium.
2. Define measurement, which is more accurate a Vernier Caliper or a Screw Gauge and why?
3. Write three points of difference between Mass and Weight OR
4. Write three points of difference between Heat & temperature
5. State Hooke's Law and derive equation  $F = kx$
6. What is the mass of a solid iron wrecking ball of radius 18 cm. If the density of iron is  $7.8 \text{ g / cm}^3$
7. A cylinder contains  $60 \text{ cm}^3$  of air at a pressure of 140 kPa. What will its volume be if the pressure on it is increased to 420 kPa?
8. A ball of mass 400 g, strike the wall of velocity 4 m/s. How much is the kinetic energy of the ball at the time of strikes the wall
9. The "X" and "Y" components of a force vector F are 6N and 8N respectively. Find the magnitude and direction of F.
10. 2 kg of Copper requires 2050 J of heat to raise its temperature through  $10^\circ\text{C}$ . Calculate the heat capacity of the sample.
11. A boy is digging a hole with spade of edge  $0.3 \text{ cm}^2$  . Calculate the pressure when he is exerting the force of 1000 N onto the spade.
12. A train is moving with a velocity 72 km/hr. By applying the brakes a retardation of  $0.5 \text{ m/s}^2$  is produced, find the times it will take to stop
13. State and prove the law of conservation of energy
14. Define Co-efficient of linear expansion and co-efficient of cubical expansion?
15. State and explain Boyle's law ,Charles law and pressure law?
16. State and explain Charles law?
17. State Pascal's principle write down the application of Pascal's principle.
18. Derive an expression for the mass of earth.
19. Define centripetal force and centrifugal force.
20. Write down the name of any three renewable energy sources and any three Nonrenewable energy sources