

SCHOOL OF DIPLOMA ENGINEERING, SOLDHA
IMPORTANT QUESTIONS, PHYSICS-1

VERY SHORT ANSWER TYPE QUESTIONS

- Q.1 Fundamental quantities
- Q.2 Derived quantities
- Q.3 Principle of homogeneity
- Q.4 Physical quantity
- Q.5 Fundamental and derived units
- Q.6 S.I units
- Q.7 Dimensional formula for force, work and acceleration
- Q.8 Scalar and vector quantities
- Q.9 Friction
- Q.10 Projectile
- Q.11 Centripetal and centrifugal force
- Q.12 Newton's laws of motion
- Q.13 Banking of Roads
- Q.14 Torque
- Q.15 Moment of inertia
- Q.16 Value of G on Earth
- Q.17 Escape velocity
- Q.18 Satellite
- Q.19 Value of acceleration due to gravity, g
- Q.20 Power
- Q.21 Energy and its S.I unit
- Q.22 Stress and its S.I unit
- Q.23 Strain and its S.I unit
- Q.24 Pressure and its S.I unit
- Q.25 Effect of temperature on surface tension
- Q.26 Effect of impurities on surface tension
- Q.27 Modes of transfer of heat

SHORT/LONG ANSWER QUESTIONS

- Q.1 What are the limitations of dimensional analysis?
- Q.2 Convert 1 newton into dynes.
- Q.3 Check the correctness of $S=ut+\frac{1}{2}at^2$
- Q.4 State and prove principle of conservation of linear momentum.
- Q.5 Derive relation between linear velocity and angular velocity.
- Q.6 Derive relation between linear acceleration and angular acceleration.
- Q.7 Give derivation of resolution of force.
- Q.8 Define composition of forces. Derive parallelogram law of forces.
- Q.9 Give the derivation of banking of roads.
- Q.10 Give expression of kinetic energy of rotation.
- Q.11 Define satellite and explain its types.
- Q.12 what are three kepler's laws of planetary motion.
- Q.13 Define conservation of energy. Give expression for conservation of free falling body.
- Q.14 Explain Young's modulus, Bulk modulus and modulus of rigidity.
- Q.15 Differentiate between streamlined and turbulent flow.
- Q.16 Derive an expression for rise of liquid in capillary.
- Q.17 Explain transfer of heat by conduction, convection and radiation.
- Q.18 Define thermal conductivity. Derive an expression for coefficient of thermal conductivity.
- Q.19 Define radiation. Write properties of heat radiations.
- Q.20 Explain different scales of temperatures.