

Physics	Ninth Lahore Board 2019	Paper-I
Time: 1.45 hrs	Examination Type (Group - I)	Marks : 48

PART-I

2. Write short answers to any FIVE (5) questions: 10

- i. What is meant by base quantities and base units?
- ii. Define scientific notation.
- iii. Write four name of laboratory safety equipments.
- iv. Define terminal velocity.
- v. Differentiate between vectors and scalars.
- vi. What is meant by breaking and skidding?
- vii. Write two methods of reducing friction.
- viii. Define centripetal force and write its formula.

3. Write short answers to any FIVE (5) questions: 10

- i. What is meant by unstable equilibrium?
- ii. What is difference between like and unlike parallel forces?
- iii. How the mass of earth can be determined?
- iv. Define field force.
- v. Write the value of 'G' and write its S.I unit.
- vi. What do you mean by light energy?
- vii. Define potential energy and write its equation.
- viii. Define power and write its S.I unit.

4. Write short answers to any FIVE (5) questions: 10

- i. State Hooke's Law.
- ii. State Young's Modulus.
- iii. Define density and elasticity.
- iv. Define latent heat of fusion.
- v. Differentiate between heat and temperature.
- vi. Define thermal conductivity of a substance.
- vii. What is difference between land and sea breezes?
- viii. Write two uses of good conductors.

PART - II

Note: Attempt any TWO questions.

5.(a) Derive first equation of motion with the help of speed-time graph. 4

(b) How much centripetal force is needed to make a body of mass 0.5 kg to move in a circle of radius 50 cm with a speed 3 ms^{-1} ? 5

6.(a) State and explain the conditions for equilibrium. 4

(b) A motor boat moves at a steady speed of 4 ms^{-1} . Water resistance acting on it is 4000 N. Calculate power of its engine. 5

7.(a) Define volume thermal expansion. Derive the equation $V = V_0 (1 + \beta \Delta T)$ 4

(b) An object has weight 14.4 N in air. Its weight is found to be 11.4 N when immersed in water. Calculate its density. Can you guess the material of the object? 5