Physics	Ninth, 2024 Lahore Board	Group – II
Time: 1.45 hrs.	Essay Type	Marks : 48

PART – I

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

i. Define least count. What is the least count of a meter rod?

ii. Define base quantities and derived quantities.

iii. How do the prefixes micro, nano and pico relate to each others?

iv. What is the relation between force and momentum?

v. What is co-efficient of friction?

vi. Write two methods of reducing friction.

vii. What is meant by gravitational field strength, write its value on earth?

viii. Why it is said that gravitational force is a non-contact force?

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

i. Define graph and write its uses.

ii. When is a body said to be at rest?

iii. Why vector quantities can not be added and subtracted like scalar quantities?

iv. If mass of 5 litre of water is 5 kg, calculate its density.

v. Define hydrometer and write its uses.

vi. Why does the atmospheric pressure vary with height?

vii. Define green house effect.

viii. What is meant by convection current?

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

i. Describe resolution of force.

ii. Define centre of mass.

iii. Narrate name of states of equilibrium.

iv. Define heat and electrical energy.

v. Write two methods by which nuclear energy is released

vi. What is wind energy? Write its uses.

vii. What do you mean by upper and lower fixed points of thermometer?

viii. Define latent heat of fusion.

PART - II

Note: **Attempt any TWO questions.**

Q.5(a) State and explain Newton's third law of motion with examples.

(b) The gravitational force between two identical lead spheres kept at 1m apart is 0.006673 N. Find their masses.

Q.6(a) Explain in detail the types of motion.

(b) The head of a pin is a square of side 20mm, find the pressure on it due to a force of 40N.

Q.7(a) Define energy and write a note on three forms of energy.

(b) Find the magnitude and direction of a force, if its x-component is 12N and y-component is 5N.