

Physics	Gujranwala Board Group-I	Paper I
Time: 1:45 Hrs.	9th Class 2023	Marks: 48

(Subjective)

NOTE: Section I is compulsory. Attempt any TWO (2) questions from Section II.

(Section-I)

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

- i Write down the names of any four base quantities.
- ii Define prefixes. How are these useful?
- iii Estimate the age of 16 years in seconds.
- iv Differentiate between distance and displacement.
- v Define uniform velocity.
- vi Define momentum. Write down its SI unit.
- vii Define mass and weight.
- viii Write down advantages of friction.

3 Write short answers to any FIVE (5) questions. (5×2=10)

- i Differentiate between torque and couple.
- ii How vectors are added by head to tail rule?

ii What is meant by the force of gravitation?

v Differentiate between natural satellite and artificial satellite.

v What is a field force?

vi Define unit of work.

vii Define watt (unit of power).

viii How is percentage efficiency calculated?

4 Write short answers to any FIVE (5) questions. (5×2=10)

Describe Archimedes principle.

Define pressure. Write its SI unit.

Define elasticity.

Differentiate between temperature and heat.

Convert 100°F into the temperature on Celsius scale.

Write down two uses of good conductors.

Describe land breeze and sea breeze.

What is meant by convection.

(Section-II)

Note: Attempt any TWO (2) questions.

5 (a) With the help of speed-time graph prove that (4)

$$2aS = v_f^2 - v_i^2$$

(b) A body has weight of 20N. How much force is required to move it vertically upward with an acceleration of 2ms^{-2} ? (5)

(a) Define centre of gravity. How the centre of gravity of an irregular shape is found? (4)

(b) Calculate the power of a pump, which can lift 200kg of water through a height of 6m in 10 seconds. (5)

(a) Define evaporation and explain the factors which affect the evaporation. (4)

(b) The weight of a metal spoon in air is 0.48N. Its weight in water is 0.42N. Find its density. (5)