

Physics (New Scheme)	9th...2018 Gujranwala Board	Paper I (Essay Type)
Time: 1 1/2 Hours	(Group-I)	Max Marks: 48

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

- (i) What is meant by "prefixes"?
- (ii) Define least count of vernier calliper.
- (iii) Define physical quantities.
- (iv) Define vibratory motion.
- (v) Define uniform acceleration.
- (vi) Define force also write its unit.
- (vii) State Newton's third law of motion.
- (viii) Write down two advantages of friction.

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

- (i) Define centre of mass.
- (ii) What is the difference between stable equilibrium and unstable equilibrium?
- (iii) Define field force.
- (iv) How the value of 'g' varies with altitude?
- (v) State law of gravitation.
- (vi) Name any four devices that convert electrical energy into mechanical energy.
- (vii) Define joule and watt.
- (viii) Define efficiency and write its formula.

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

- (i) Define density and write its SI unit.
- (ii) State Pascal's law.
- (iii) What is meant by "deforming force"?
- (iv) Define temperature and write its SI unit.
- (v) What is meant by "internal energy of body"?
- (vi) What is meant by upper fixed point and lower fixed point of a thermometer?
- (vii) Define conduction of heat.
- (viii) Write two uses of convection currents.

PART-II

5. (a) Derive first equation of motion with graph: $v_f = v_i + at$. (4)

(b) A stone of mass 100g is attached to a string 1m long. The stone is rotating in a circle with a speed of 5mS^{-1} . Find the tension in the string. (5)

6. (a) What is solar energy? How can solar energy be converted into useful form? Explain it. (4)

(b) A nut has been tightened by a force of 200N using 10cm long spanner. What length of spanner is required to loosen the same nut with 150N force? (5)

7. (a) What is meant by "evaporation". Explain its any three factors. (4)

(b) The head of a pin is a square of side 10mm. Find pressure on it due to a force of 20N. (5)