

Bahawalpur Board 2018 (First Group)

Roll No.(in Figures): (in Words):

Maximum Marks: 48

**SUBJECTIVE TYPE
(PART - I)**

Time Allowed :1.45 Hours

Q2. Write short answers to any FIVE (5) questions: (5×2=10)

- (i) Differentiate between Base Quantities and Derived Quantities.
- (ii) Define Atomic Physics and Nuclear Physics.
- (iii) How the volume of an Irregular Shaped Solid can be find?
- (iv) Differentiate between Rest and Motion.
- (v) Define Random Motion and give two examples.
- (vi) Define Force. (vii) State Newton's First Law of Motion.
- (viii) Differentiate between Mass and Weight.

Q3. Write short answers to any FIVE (5) questions: (5×2=10)

- (i) Differentiate between Like Parallel Forces and Unlike Parallel Forces.
- (ii) State Principle of Moments. (iii) State Law of Gravitation.
- (iv) Write down formula and value of Mass of the Earth.
- (v) What is meant by Communication Satellite? (vi) Define work and write its formula.
- (vii) Define Kinetic Energy and write its formula. (viii) Define Unit of Power.

Q4. Write short answers to any FIVE (5) questions: (5×2=10)

- (i) Define Pressure and write its SI Unit. (ii) State Pascal's Law.
- (iii) What is meant by Elasticity?
- (iv) Differentiate between Heat and Temperature.
- (v) Define Latent Heat of Vaporization. (vi) Define Thermal Conductivity.
- (vii) What is Transfer of Heat? Define Conduction. (viii) What is meant by Green House Effect?

(PART - II)**Note: Attempt any TWO questions. (2×9=18)****Q5. (a) State Law of Conservation of Momentum. Explain it with balls example. 4**

- (b) Find the Retardation produced when a car moving at a velocity of 30ms^{-1} slows down uniformly to 15ms^{-1} in 5s. 5

Q6. (a) Explain Fossil Fuels and Nuclear Fuels. 4

- (b) The steering of a Car has a Radius 16 cm. Find the Torque produced by a couple of 50 N. 5

Q7. (a) Define Linear Thermal Expansion of Solids and derive the equation $L = L_0(1 + \alpha\Delta T)$ 4

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