

Section-A

Q.1: Choose the correct answer for each from the given options:

- (i) Torque is a _____ quantity.
(a) Vector (b) Scalar (c) Positive (d) Negative
- (ii) According to quantum, photons are _____
(a) waves (b) energy packets (c) particles
(d) Eelctromagnetic waves
- (iii) One joule is equal to
(a) 1 N-s (b) 1 N-m (c) 1 hp (d) 1 KW
- (iv) The random motion of molecules in a fluid was first discovered by
(a) Robert Boyle (b) Robert Brown (c) Newton (d) Farady
- (v) geostationary communication satellite placed in equatorial orbit at 120o from one another, can cover the whole populated land of the world.
(a) Three (b) Four (c) Five (d) Six
- (vi) - Rays are found to be in

- (a) Electromagnetic waves (b) Electrons
(c) Fastly moving neutron (d) Fastly moving helium nucleus
- (vii) The value of "G" is
(a) $6.67 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$ (b) $6.67 \times 10^{-11} \text{ Nm}^2/\text{Kg}^2$
(c) $6.67 \times 10^{-11} \text{ Nm}^2/\text{Kg}^2$ (d) None of these
- (viii) Elasticity of substance depends on its.....
(a) Temperature (b) Size (c) Nature (d) Pressure
- (ix) A cone resting on its side is in equilibrium.
(a) Neutral (b) Stable (c) Unstable (d) Dynamic
- (x) Muslim scientist was discovered the music.
(a) Al-Beruni (b) Alkindi (c) Al-Khawarizmi
(d) Nasir-ud-Din Tusi
- (xi) The unit of capacity is known as
(a) Ohm (b) Volt (c) Farad (d) Coulomb
- (xii) The standard meter is made of
(a) Platinum and Copper (b) Iron and Copper (c) Iron and Iridium
(d) Platinum and Iridium
- (xiii) The emission of rays from the nucleus is called
(a) Atomic dispersion (b) Atomic process (c) Radio-activity
(d) Chemical process

Section-B (Short Answer)

Note: Answer any EIGHT of the following questions. Each question carries 05 marks.

- Q.2: What are the contributions of Dr. Abdul Salam in the field of Physics?
- Q.3: Define the branches of Physics Kinematics and dynamics.
- Q.4: What is momentum? Define.
- Q.5: What is the relation between centre of gravity and weight?
- Q.6: Differentiate between kinetic energy and potential energy.
- Q.7: Why it is dangerous to jump from a fast moving train? Explain.
- Q.8: A stone is thrown vertically upward with a velocity of 20 ms^{-1} . Find the maximum height reached by the stone and the total time of flight.
- Q.9: Drive the equation: $PV = nRT$
- Q.10: Write the uses of radio-active isotopes.
- Q.11: Describe the simple camera with the help of diagram.
- Q.12: Explain why it is more dangerous to burn steam than from boiling water although both are at the same temperature?
- Q.13: A string 2m long is used to whirl a 200 gm stone in horizontal circle at a speed of 2m/s. Find the tension in string.

Section-C (Descriptive Answer)

Note: Answer any Two of the following questions.

- Q.14: What do you mean by viscosity? Define coefficient of viscosity? How does it depend on temperature?
- Q.15: A bus is moving with velocity of 60 km/h^{-1} when brakes are applied it comes to rest after two second. Find the distance travelled by it, before coming to rest.