BOARD OF INTERMEDIATE & SECONDARY EDUCATION, HYDERABAD

Excellence – Equity – Empathy

Time: 2 Hours | **PHYSICS MODEL PAPER (CLASS IX)** | Marks: 60

SECTION A

MULTIPLE CHOICE QUESTIONS (MCQs)

Q.No: 1 (1) **Attempt all questions. Each question carries 1 mark.**
(2) **Write answer in full on the first specified page of answer copy with choose (A.B.C & D)**

(i) Ibn-al-Haitham contributed toward Physics.
(a) Nuclear (b) Oceanographic (c) Optical (d) Thermal

(ii) Dr. Abdus Salam was awarded Nobel Prize for his work on_____.
(a) Electronics (b) Radiation
(c) Grand Unification Theory (d) Gravitatian.

(iii) Pin hole camera was invented by _____.
(a) Al-Beruni. (b) ibn-al-Haitham (c) Al- Kindi (d) Al-Khwarzmi.

(iv) 10^{-9} second is called _____.
(a) Decisecond (b) Millisecond (c) Micrrosecond (d) Nanosecond

(v) One meter is equal to _____.
(a) 10^4 mm (b) 10^3 mm (c) 10^2 mm (d) 10^6 mm

(vi) The standard metre is made of _____.
(a) Platinium and Coper (b) Iron and copper
(c) Iran and iridium (d) Platinium and iridium

(vii) Least count of vernier calipers is_____.
(a) 1mm (b) 0.1mm (c) .01mm (d) 10mm

(viii) If the velocity of a body changes equally in equal interval of time , its acceleration is called____.
(a) Average (b) Uniform (c) Variable (d) Constant

(ix) Machines are divided into _____ part.
(a) Two (b) three (c) four (d) Five

(x) The value of g is _____.
(a) 8.9 m/s^2 (b) 9.8 m/s^2 (c) 8.8 m/s^2 (d) 7.8 m/s^2

(xi) The motion of pendulum is _____.
(a) Rolatory (b)Vibratory (c) Translatory (d) Uniform

(xii) If the force acting on a body is double, then the acceleration produced is _____.
(a) ½ (b) ¼ (c) Double (d) Quadrupled

(xiii) The S.1 unit of force is:
(a) Meter (b) ms^{-1} (c) Kg (d) Newton

(xiv) Which is the best approximation of the weight of an object of man 800 grams?
(a) 88 N (b) 80 N (c) 0.8 N (d) 8 N

(xv) The unit of coefficient of friction is _____.
(a) Newton (b) Kilogram (c) Meter (d) None

(xvi) _____ is a Vector quantity.

(a) Work (b) Density (c) Velocity (d) Temperature

(xvii) In a right angled triangle the side opposite to the right angle is called_____.

(a) Base (b) Perpendicular (c) Hypotenuse (d) None of these

(xviii) If Fx and Fy are rectangular component of a force F than tan0_____.

(a) $\frac{Fx}{Fy}$ (b) $\frac{Fy}{Fx}$ (c) Fx + Fy (d) Fx-Fy

(xix) The turning effect of a force about an axis is _____.

(a) Force (b) Rotation (c) Torque (d) Momentum

(xx) Clockwise torque is considered as

(a) Positive torque (b) Negative torque (c) Unit torque (d) Zero torque

(xxi) A body at rest or moves with uniform velocity is said to be

(a) Motion (b) Equilibrium (c) Static equilibrium (d)Dynamic quilibrium

(xxii) The first condition of equilibrium states that__.

(a) $\sum$ P=0 (b) $\sum$ J=0 (c) $\sum$ F=0 (d) both (b) & (c)

(xxiii) The mass of earth can be fine by _____ law of gravitation .

(a) Boyle's (b) Newton (c) Charles (d) Coulomb's

(xxiv) If the speed of a body moving in a circle is doubled its centripetal acceleration becomes ___.

(a) Single (b) Twice (c) Four times (d) Eight time

(xxv) The value of G is

(a) 6.67×10^{-9} N-m^2/Kg^2 (b) 6.67×10^{-11} N-m^2/Kg^2

(c) 6.67×10^{-10} N-m^2/Kg^2 (d) 6.67×10^{-8} N-m^2/Kg^2

(xxvi) One Joule is equal to_____.

(a) 1 N.S (b) 1lb.m (c) 1. Nm (d) 1Kg

(xxvii) Heat is a form of ___.

(a) Work (b) Energy (c) Wave (d) Sound

(xxviii)An object appears lighter in water because of one of the properties of water

(a) Buoyancy (b) Surface tension (c) Viscosity (d) Pressure

(xxix) Rendom motion of molecule in a fluid was first discovered by:

(a) Robert Boyle (b) Robert Brown (c) Newton (d) Pascal

(xxx) The temperature of substance changes from -20^0 C to 20^0 C . What is the temperature charge in Kelvin's scale?

(a) 0^0 K (b) 20K (c)40 K (d) 293 K

BOARD OF INTERMEDIATE & SECONDARY EDUCATION, HYDERABAD

Excellence – Equity – Empathy

Time: 2 Hours | **PHYSICS MODEL PAPER (CLASS IX)** | Marks: 60

18 Marks

SECTION A
SHORT ANSWER

NOTE: Attempt any SIX of the following question. Each carries 03 marks.

Q.No:2 Describe few branches of physics.

Q.No:3 What are fundamental and devised units?

Q.No:4 Prove that $vf^2 = vi^2$

Q.No:5 Differentiate between mass and weight.

Q.No:6 The mass of an electrons is 9.11×10^{-31} Kg. Convert it in gm, milligram and microgram.

Q.No:7 Explain scalar and vector quantities.

Q.No:8 What is centripetal force.

Q.No:9 What is energy. Describe different form of energy.

Q.No:10 What do you understand by the term elasticity?

Q.No:11 How much work is done to displace horizontally a body 40m by a force of 200N whose angle with the horizontal is 30^0?

SECTION "C"
(LONG ANSWER)

NOTE: Answer any TWO of the following questions. Each carries 6 marks. **(12 Marks)**

Q.No:12 (a) Define force: How does second law of motion help us measuring of force.

(b) A car starts from rest and after 20 second its velocity becomes $108Kms^{-1}$. Find the acceleration of car.

Q.No:13 (a) State and explain Newton's law of gravitation.

(b) At what speed must an object travel in a circle of radius 2m to experience a Centripetal acceleratun of $9.8ms^{-2}$.

Q.No:14 Write notes on any One of the following:

(i) Anomalous enpansoon of water.

(ii) Resolution of vector

(iii) Pascal's Law