# CH 01 INTRODUCTION TO PHYSICS

1. First determine the densities of metals.

i) **Al-Beruni** ii) Ibn-e-sina iii) Ibn-al-hathiam.

2. Kitab-ul-manzair was written by_____.

i) Yaqub bin ishaq ii) Ibn-e-sina **iii) Ibn-al-hathiam.**

3. In the field of research the strong incentive comes from_____.

i) Bible ii) **Quran** iii) Torah

4. Pin hole camera was invented by_____.

i) Al-Razi ii) Al-Beruni iii) **Ibn-al-hathiam.**

5. Dr. Abdu's salaam was awarded Nobel Prize of his work on _____.

i) Electronics ii) Radiation iii) **Grand Unification Theory.**

6. The name of famous book of Ibn al Haitham was_____.

i) **Kitab-ul-manazir** ii) Aljber-wal-muqabala iii) Qanoon-al-masoodi

7. _____ Is concerned with the application of modern physics to the problem of astronomy.

i) **Astro Physics** ii) Mechanics iii) Atomic Physics.

8. Atomic physics, concerned with the structure and the properties of _____.

i) Plasma ii) Nucleus **iii) Atoms.**

9. _____ Is the branch of physics which discuses the motion of body under the action of given force.

i) Plasma-Physics **ii) Mechanics** iii) Atomic

10. _____ A branch of science which deals with the study of properties of matter and energy.

i) Biology **ii) Physics** iii) Chemistry

# CH 02 MEASURMENT

1. Difference between the measured value and actual value is called_____.

**i) Error** ii) Accuracy iii) significant figure.

2. 1 Millie-second is equal to_____sec.

**i) $10^{-3}$** ii) $10^{-6}$ iii) $10^{-9}$

3. 1 micro-second is equal to_____sec.

i) $10^{-3}$ **ii) $10^{-6}$** iii) $10^{-9}$

4. Second is the unit of _____.
**i) Time** ii) Electricity iii) Mass

5. Ampere is the unit of _____.
i) Time **ii) Current** iii) Length

6. Kg is the unit of _____.
i) Time ii) Length **iii) Mass**

7. If two quantities are inversely proportional to each other the graph between them will be _____.
i) Circle ii) Straight line **iii) Curve**

8. If the graph between two quantities is straight line then these quantities are _____ to each other.
**i) Direct** ii) Inverse iii) Equal

9. Meter is the unit of _____.
i) Time **ii) Length** iii) Mass

10. In physics length, mass and time are considered as _____ Quantities.
**i) Basic** ii) Drive

## CH 03 KINEMATICS OF LINEAR MOTION

1. The S.I unit of speed in M.K.S system is_____.
**i) m/s** ii) $m/s^2$ iii) Newton

2. If a moving body cover equal distance in equal interval of time in a particular direction is called _____.
**i) Uniform Velocity** ii) Variable Velocity iii) Average Velocity

3. Speed in a given direction is called _____.
i) Acceleration **ii) Velocity** iii) Torque

4. The numerical value of g is _____.
i) 11 $m/s^2$ **ii) 9.8 $m/s^2$** iii) 15 $m/s^2$

5. The rate of change of velocity is called_____.
i) Speed ii) Velocity **iii) Acceleration**

6. The displacement covered by the body in unit time is called _____.
i) Speed **ii) Velocity** iii) Acceleration

7. The distance covered by the body in unit time is called _____.

**i) Speed** ii) Velocity iii) Acceleration

8. If a body move in straight path so the body is said to be in _____ motion.

**i) Translatory** ii) Rotatory iii) Vibratory

9. When a body changes its position with respect to its surrounding so the body is said to be in the state of _____ .

i) Rest **ii) Motion**

10. _____ Is the branch of physics which deals with the description of motion without the reference of force?

**i) Kinematics** ii) Dynamics

## CH 04 FORCE AND MOTION

1. The unit of co-efficient of friction is _____.

i) Newton ii) Kg iii) Meter **iv)None of them**

2. The unit of Torque in S.I system is _____.

i) Newton ii) Kg **iii) Newton-Meter** iv) Meter

3. If the mass of the body is 5 kg its weight will be _____.

i) 4.9 N **ii) 49 N** iii) 94 N

4. The product of mass and velocity is called_____.

i) Work ii) Torque **iii) Momentum**

5. Every action there is always _____ reaction.

**i) Equal-Opposite** ii) In-equal-opposite

6. The force with which the earth attracts the body towards its center is called__.

i) Mass **ii) Weight** iii) Velocity

7. The quantity of matter present in a body is called_____.

i) Mass ii) Volume **iii) Weight.**

8. No moving object can be stop without applying _____.

i) Speed ii) Energy **iii) Force**

9. Motion cannot be produced in a body without_____.

i) Power **ii) Force** iii) Momentum

10. If the weight of the body is 49N its mass is _____.

i) 4 **ii) 5** iii) 6

11. In M.K.S system the unit of force is _____.

**i) Newton** ii) Dyne iii) Coulomb

## CH 05 DYNAMICS

1. The process of splitting up vectors into its components is called_____.

i) Addition of vector ii) Composition of vector **iii) Resolution of vector**

2. _____ Is scalar quantity.

i) Displacement ii) Force **iii) Mass**

3. _____ Is vector quantity.

i) Mass ii) Time **iii) Displacement**

4. The x-component of force 'F' acting at an angle 'θ' with the axis is given by the formula_____.

**i) FCosθ** ii) FSinθ iii) Ftanθ

5. The angle between rectangular component of a vector is_____ .

**i) $90^0$** ii) $60^0$ iii) $45^0$

6. Vector is added graphically by using_____ .

i) Right hand rule **ii) Head to tail rule** iii) Left hand rule

7. A scalar has no_____ .

i) Number ii) Unit **iii) Direction**

8. Displacement is an example of_____ .

i) Scalar **ii) Vector**

9. Those physical quantities which are completely expressed by numbers a suitable unit as well as direction are called _____ quantities.

i) Scalar **ii) Vector**

10. Those physical quantities which are completely expressed by numbers a suitable unit are called ____ quantities.

**i) Scalar** ii) Vector

## CH 06 STATICS

1. A body is said to be in equilibrium condition it is at_____ or move with uniform velocity.

**i) Rest** ii) Motion

2. The center of gravity is point where _____ .

i) The torques acts **ii) The weight appears to act** iii) the external force acts

3. Torque is the product of_____ .

i) Mass and force **ii) Force and moment arm** iii) Mass and acceleration

4. In first condition of equilibrium_____ .

i) $\Sigma\tau = 0$ **ii) $\Sigma F = 0$** iii) $\Sigma P = 0$

5. In Second condition of equilibrium_____ is Zero.

**i) Torque** ii) Force iii) Work

6. If the center of gravity of the body lies at the point of suspension the body is said to be_____.

**i) Unstable** ii) Stable iii) Neutral

7. A body is in stable equilibrium if it comes back to its _____ after slightly disturbance.

**i) Original** ii) New

8. The first condition of equilibrium is that the resultant of all forces acting on the body in equilibrium is _____ .

i) 1 **ii) 0** iii) 2

9. _____ Is the branch of mechanics which deals with the bodies at rest under the number of forces?

**i) Statics** ii) Kinematics iii) Dynamics

## CH 07 CIRCULAR MTION AND GRAVITATION

1. The radius of earth is equal to_____

**i) $6.4 \times 10^6$m** ii) $6 \times 10^{24}$m iii) $6.9 \times 10^{27}$m

2. The mass of earth is equal to_____

**i) $6 \times 10^{24}$Kg** ii) $6 \times 10^{9}$kg iii) $6 \times 10^{27}$kg

3. The Value of gravitational constant is equal to_____

**i) $6.67 \times 10^{-11}$N-m$^2$/Kg$^2$** ii) $7.67 \times 10^{-11}$N-m$^2$/Kg$^2$ iii) $8.67 \times 10^{-11}$N-m$^2$/Kg$^2$

4. If stone is tied to the end of the string and whirled in a circle the tension in the string provides _____

**i) Centripetal force** ii) Pressure iii) Normal reaction

5. G is called _____ .

i) Acceleration due to gravity ii) Gravitational force **iii) Gravitational constant**

6. The gravitational force between two bodies depends upon the product of their mass, in addition to them _____

**i) Distance between** ii) Shape of bodies iii) Sum of mass

7. Centripetal force = _____

i) $mr/v^2$ ii) $rv^2/m$ **iii) $mv^2/r$**

8. The equation $M_E$ = _____ is used to determined the mass of earth.

i) $gG/R_E^2$ ii) $GR_E^2/g$ **iii) $gR_E^2/G$**

9. The unit of centripetal force is_____

i) Joule ii) Watt **iii) Newton**

10. g is called _____

**i) Acceleration due to gravity** ii) Gravitational force iii) Gravitational constant

## CH 08 WORK, ENERGY AND POWER

1. The unit of power is_____

**i) Watt** ii) Joule iii) Newton iv) Kg

2. The unit of Energy is_____

i) Watt **ii) Joule** iii) Newton iv) Kg

3. _____ Is same as Kg-$m/s^2$.

i) Joule **ii) Newton** iii) Watt iv) Kilo-Watt

4. Energy possess by a body on account of its position is called _____ energy.

i) Potential energy **ii) Kinetic energy**

5. The commercial unit of electrical energy is _____

i) Joule ii) Newton **iii) Kilo-watt hours**

6. If the speed of the body is double its kinetic energy becomes_____

i) Half **ii) Twice** iii) Thrice iv) Four times

7. The unit of work is _____

i) Watt **ii) Joule** iii) Newton iv) Kg

8. Work is done when a body is moved through a distance by a _____

i) Fulcrum ii) Inclined plane iii) M.A **iv) Force**

9. Energy possess by the body by virtue of its motion is called _____

**i) Potential energy** ii) Kinetic energy

10. Work is the product of force and _____

**i) Distance** ii) Speed iii) Acceleration

## CH 09 MACHINES

1. The distance between two consecutive thread is called _____

**i) Pitch** ii) Radius iii) Diameter

2. The door is an example of an order of _____ kind of lever.

i) First ii) Second **iii) Third**

3. The M.A of moveable pulley is_____

**i) 1** ii) 2 iii) 3

4. The unit of M.A is _____

i) Meter ii) Newton **iii) None of them**

5. Any plane which makes an angle with x-axis is called _____

**i) Inclined plane** ii) Pulley iii) Screw

6. The M.A of fixed pulley is_____

**i) 1** ii) 2 iii) 3

7. A pair of scissor is an example of _____

i) Pulley **ii) Lever** iii) Wheel an axle iv) Inclined plane

8. If the fulcrum of the lever is between the effort and the load it is_____ class of lever

**i) First** ii) Second iii) Third

9. A_____ is a simple machine.

i) Sewing machine ii) Washing machine **iii) Pulley**

10. The sea-saw is an example of _____ kind of lever.

**i) First** ii) Second iii) Third

## CH 10 MATTER

1. The S.I unit of strain is _____

i) Pascal ii) Newton iii) Newton-meter **iv) None of them**

2. The S.I unit of Pressure is _____

**i) Pascal** ii) Newton iii) Newton-meter

3. The molecules of the solid is _____

**i) Very close to each other** ii) Vary far to each other

4. The molecular theory of matter was experimentally testified by_____

i) Hooks ii) Archimedes **iii) Robert-Brown** iv) Pascal

5. One calorie is_____ joule.

i) 4.2 ii) 0.42 **iii) 4200**

6. Evaporation takes place at the _____

i) $0^0$C ii) $100^0$C **iii) All temperature**

7. A force on a unit area of a solid tends or to produce deformation in solid is called _____

i) Pressure **ii) Stress** iii) Strain

8. The property of solid by virtue of which a solid body covers its original shape after the removal of applied force called _____

**i) Elasticity** ii) Plasticity

9. According to molecular theory of matter the molecules of matter is always remain in_____

**i) Brownian motion** ii) Vibratory motion

10. The irregular motion of small suspended particles is called _____

i) Circular motion **ii) Brownian motion**

## CH 11 HEAT

1. _____ Is the degree of hotness and coldness of a body?

i) Heat **ii) Temperature**

2. Pressure law discussed the relationship between _____ and temperature.

i) Volume **ii) Pressure** iii) Temperature

3. Charles's law discussed the relationship between _____ and temperature.

**i) Volume** ii) Pressure iii) Temperature

4. Boyle's law discussed the relationship between _____ and pressure.

**i) Volume** ii) Pressure iii) Temperature

5. A piece of metal become hot when it lies in the sun through _____
i) Conduction ii) Convection **iii) Radiation**

6. The increasing in volume of the body on being heating is called_____
i) Linear expansion ii) superficial expansion **iii) volumetric expansion**

7. The change of liquids into vapors without being boiled is called_____
**i) Evaporation** ii) Boiling point iii) Melting point

8. The general gas equation state that the relationship between the volume, pressure and temperature of gas is PV = nR_____ .
i) S **ii) T** iii) A

9. The increase in length of body on being heat is called_____ .
**i) Linear thermal expansion** ii) longitudinal expansion iii) Spherical extension

10. Heat is a form of _____
i) Work **ii) Energy** iii) Power

## CH 12 WAVES AND SOUND

1. A complete round trip by vibrating body is known as_____
i) Time period ii) Frequency iii) Amplitude **iv) Vibration**

2. The unit of frequency is _____
i) Newton ii) Meter **iii) Hertz** iv) Pascal

3. The time required to one vibration is called _____
**i) Time period** ii) Frequency iii) Amplitude

4. SONAR stands for _____
**i) Sound navigation and ranging** ii) Radio detection and ranging

5. RADAR stands for _____
i) Sound navigation and ranging **ii) Radio detection and ranging**

6. The study of production and properties of sound is called _____
**i) Acoustics** ii) Mechanics iii) Dynamics

7. If frequency of wave is 30 cycle/sec and length is 0.2m, then the velocity_____

**i) 6 m/s** ii) 150 m/s iii) 0.006 m/s iv) 8 m/s

8. The distance between two consecutive crest or trough is called_____
i) Displacement **ii) Wave length** iii) Velocity iv) Speed

9. If the length of the pendulum of the pendulum becomes 4 times, its period will become _____
**i) 4 times** ii) Twice iii) Thrice iv) 8 Times

10. The time period of 2nd pendulum is _____
i) 1 **ii) 2** iii) 3 iv) 4

## CH 13 REFLECTION OF LIGHT

1. If an object is placed between focus and pole of concave mirror the image is formed_____
i) Beyond center of curvature ii) At focus iii) At center of curvature
**iv) Behind the mirror**

2. When the ray of light travels from the one medium strikes the surface of another medium a part of its of bounced back along the particular direction in the same medium, this process of bouncing back is called_____of light.

**i) Reflection of light** ii) Refraction of Light

3. If q = 8cm and P = 2cm then the magnification will be _____
i) Two ii) Zero iii) Five **iv) Four**

4. If an object is placed between the focus and the center of curvature of the concave mirror the image is formed _____
**i) Beyond center of curvature** ii) At focus iii) At center of curvature

5. If q = 4cm and P = 2cm then the magnification will be _____
**i) Two** ii) Zero iii) Five iv) Four

6. If an object is placed at the center of curvature of a concave mirror _____&_____image is formed.
i) Erect and enlarge ii) Invert and small **iii) Inverted and equal**

7. All the rays, parallel to the principle axis falling on the concave mirror passed after the reflection through it _____
i) Pole **ii) Principle focus** iii) Center of curvature

8. The ratio of size of the image to the size of the object is called _____
**i) Magnification** ii) Power of lens

## CH 14 REFRACTION OF LIGHT

1. A concave lens is_____
**i) Thinner at the center** ii) Thicker at the center

2. If an object is situated between the center of curvature and the principle focus of a convex lens, then its image is formed _____
i) At center of curvature **ii) Beyond center of curvature** iii) At optical center

3. The speed of light is _____
i) 3 x $10^6$m/s ii) 1.86 x $10^6$m/s **iii) 3 x $10^8$m/s**

4. A convex lens is_____
i) Thinner at the center **ii) Thicker at the center** iii) Plane throughout.

5. For total internal reflection the angle of reflection must be _____at the critical angle.
**i) Greater than** ii) Smaller than iii) Equal to

6. When a ray of light enters obliquely from one medium to another is deviated from its original path the process is called _____of light.
i) Reflection **ii) Refraction**

7. Light is the form of _____.
**i) Energy** ii) Work

8. The unit of the power of the lens is _____.
**i) Diopter** ii) Watt iii) Joule

## CH 15 NATURE OF LIGHT

1. 'h' is_____constant.
i) Gravitational **ii) Plank's** iii) Gas

2. We use_____to disperse white light into different colors.
i) Convex mirror **ii) Prism** iii) convex lens
iv) Concave lens

3. According to quantum theory of light propagates in the shape of_____.
**i) Photons** ii) Waves iii) Particles

4. According to Huygens's wave theory of light propagates in the shape of_____.

i) Photons **ii) Waves** iii) Particles

5. According to Newton's corpuscular theory of light. Light consist of_____.
i) Waves ii) Electromagnetic waves iii) Energy packets
**iv) particles**

## CH 16 ELECTRICITY

1. Equivalent to joules per coulomb.
i) Ampere ii) Ohm **iii) Volt**iv) Watt

2. 1 mega ohm resistance is_____ohm.
**i) $10^6$** ii) $10^{-6}$ iii) $10^8$ iv) $10^2$
v) $10^{-8}$

3. Electrical power in watt is obtain by the product of _____.
i) Volt and coulomb ii) Current and resistance iii) Volt and Ampere

4. _____ Is that which connected in series with the line wires in circuit of house.
i) Galvanometer ii) Voltmeter iii) Fuse
**iv) Ammeter**

5. The substance use as a medium between the two plates of a capacitor is known as _____.
i) Conductor ii) Semi-conductor **iii) Di-electric**
iv) Electrolyte

6. The value of constant that occurs in coulomb's force formula is _____$N\text{-}m^2/col^2$.
i) $9 \times 10^{-9}$ ii) $9 \times 10^{-16}$ **iii) $9 \times 10^9$** iv) $9.9 \times 10^{-9}$

7. Three resistors of three ohm each connected in parallel have a combine resistance of _____ ___ohm.
**i) 1** ii) 9 iii) 27

8. 1 micro-ampere equal to _____Ampere.
i) $10^{-2}$ ii) $10^{-3}$ **iii) $10^{-6}$**

9. 1 micro-Coulomb equal to _____coulomb.
**i) $10^{-6}$** ii) $10^{-9}$ iii) $10^{-12}$

10. The unit of capacitance is _____.
i) Coulomb **ii) Farad** iii) Ohm

## CH 17 ELECTROMAGNETISM

1. The materials in which electric current can flow easily are called_____.

i) Insulator ii) Semi-conductor **iii) Conductor**

2. A galvanometer can be converted into an ammeter by connecting a wire of low resistance _____ with the galvanometer.

i) In series **ii) In parallel** iii) In a combine way

iv) In no way

3. A galvanometer can be converted into voltmeter by connecting a wire of high resistance _____ with the galvanometer.

**i) In series** ii) In parallel iii) In a combine way

iv) In no way

4. The relation between electric current and the magnetic field was discovered by ____

i) Newton ii) Faraday iii) Fleming **iv) Oersted**

5. Like pole _____ each other.

i) Attract **ii) repel** iii) neither attract nor repel

iv) Sometime attract and sometime repel

## CH 18 ELECTRONICS

1. For reverse biasing the positive terminal is connected to _____.

**i) P-type crystal** ii) n-Type crystal iii) neither p or n type crystal

2. The material in which electric current can flow easily is called_____.

i) Insulator ii) Semi-conductor **iii) Conductor**

3. For Forward biasing the positive terminal is connected to _____.

i) P-type crystal **ii) n-Type crystal** iii) neither p or n type crystal

4. An n-type substance is formed when a semi-conductor is doped with a _____ element.

i) Di-Valent ii) Tri-valent iii) Tetra-Valent

**iv)Penta-Valent**

5. A current passing through a _____ is directly proportional to the potential difference across its end.

i) Insulator ii) Semi-conductor **iii) Conductor**

6. A p-type substance is formed when a semi-conductor is doped with a _____ element.

i) Di-Valent **ii) Tri-valent** iii) Tetra-Valent iv)Penta-Valent

## CH 19 NUCLEAR PHYSICS

1. The speed of light is _____m/s.

i) $3 \times 10^6$ ii) $1.86 \times 10^6$ **iii) $3 \times 10^8$** iv) $3 \times 10^{10}$

2. The number of protons in the nucleus called _____.

i) Avogadro's number **ii) Atomic number** iii) Mass number

3. _____Most penetrating.

i) Alpha rays ii) Beta rays **iii) Gamma rays**

4. Those elements whose atomic number is same but mass number different called _____.

i) Molecules ii) Secondary elements **iii) Isotopes**

5. _____Revolves around the nucleus in their respective orbits.

i) Neutrons ii) protons **iii) Electrons**

6. The process in which a heavy nucleus breaks up into two or more smaller nuclei with the release of tremendous energy is called _____.

**i) Nuclear Fission** ii) Nuclear Fusion