Physics Important Terms and their Definitions

S.No	Word	Meaning
1	Acceleration	The rate of change of velocity of an object with respect to time
2	Angular Momentum	A measure of the momentum of a body in rotational motion about its centre of mass
3	Alloy	The mixture of metal with other metal or other elements.
4	Ammeter	An instrument that is used to measure current.
5	Amorphous solid	Its a type solid which do not have definite geometrical shape. Or its non-crystalline solid.
6	Ampere	A unit that describes the rate of flow of electricity (current).
7	Amplifier	It is an electronic device that can increase the power of a signal (a time-varying voltage or current).
8	Amplitude	Height of a wave measured from its center (normal) position.
9	Alpha particle	Consist of two protons and two neutrons bound together into a particle identical to a helium nucleus, which is classically produced in the process of alpha decay, but may be produced also in other ways and given the same name.
10	Astronomical unit	It is a unit of length, roughly the distance from Earth to the Sun.
11	Astrophysics	The branch of astronomy that deals with the physics of the universe
12	Atom	A basic unit of matter that consists of a dense central nucleus surrounded by a cloud of negatively charged electrons. The atomic nucleus contains a mix of positively charged protons and electrically neutral neutrons
13	Atomic mass unit	one-twelfth the mass of an atom of the isotope 12⁄6C
14	Avogadro's Number	The number of molecules in exactly 12g of carbon-12, equaling 6.022 x 1023.
15	Battery	Battery is combination of two or more cells (electric), which produces electricity.

16	Beam	A structural element that is capable of withstanding load primarily by resisting bending
17	Beta particle	High-energy, high-speed electrons or positrons emitted by certain types of radioactive nuclei.
18	Biophysics	An interdisciplinary science using methods of, and theories from, physics to study biological systems
19	Black hole	A region of space-time where gravity prevents anything, including light, from escaping.
20	Coulomb	The SI derived unit of electric charge. It is defined as the charge transported by a steady current of one ampere in one second.
21	Collision	A collision in physics occurs when any two objects bump into each other.
22	Classical mechanics	A sub-field of mechanics that is concerned with the set of physical laws describing the motion of bodies under the action of a system of forces.
23	Celsius scale	A scale and unit of measurement for temperature, also known as Centigrade.
24	Center of gravity	The point in a body around which the resultant torque due to gravity forces vanish. Near the surface of the earth, where the gravity acts downward as a parallel force field, the center of gravity and the center of mass are the same.
25	Center of mass	A distribution of mass in space is the unique point where the weighted relative position of the distributed mass sums to zero.
26	Convection	The transfer of heat by the actual transfer of matter
27	Cyclotron	A type of particle accelerator in which charged particles accelerate outwards from the center along a spiral path
28	Density	The mass density or density of a material is its mass per unit volume. Mathematically, density is defined as mass divided by volume.
29	Distance	A numerical description of how far apart objects are.
30	Displacement	In physics, displacement refers to an object's overall change in position. It is a vector quantity.

31	Elasticity	A physical property of materials which return to their original shape after they are deformed.
32	Electric charge	A physical property of matter that causes it to experience a force when near other electrically charged matter. There exist two types of electric charges, called positive and negative.
33	Electric circuit	An electrical network consisting of a closed loop, giving a return path for the current.
34	Electric current	A flow of electric charge through a conductive medium.
35	Electric field	The region of space surrounding electrically charged particles and time-varying magnetic fields.
36	Electric power	The rate at which electric energy is transferred by an electric circuit.
37	Electronics	A field that deals with electrical circuits that involve active electrical components such as vacuum tubes, transistors, diodes and integrated circuits, and associated passive interconnection technologies.
38	Energy	Energy is the ability to do work. The standard unit of measure for energy is the joule.
39	Entropy	a quantity which describes the randomness of a substance or system
40	First law of motion	The first law of motion states that any object in motion will continue to move in the same direction and speed unless external forces act on it.
41	Force	Force is the measurement of a push or pull on an object. Force is a vector measured in newtons.
42	Friction	Friction is the resistance of motion when one object rubs against another. It is a force and is measured in newtons.
43	Fusion	A nuclear reaction in which two or more atomic nuclei join together, or "fuse", to form a single heavier nucleus.
44	Gravity	Gravity is a force caused when the mass of physical bodies attract each other. On Earth gravity pulls at objects with an acceleration of 9.8 m/s2.

45	Gamma ray	Electromagnetic radiation of high frequency and therefore high energy.
46	Impulse	An impulse is a change in momentum.
47	Heat	(or heat transfer/heat flow) Energy transferred from one body to another by thermal interaction.
48	Ion	An atom or molecule in which the total number of electrons is not equal to the total number of protons, giving the atom a net positive or negative electrical charge.
49	Ionic bond	A type of chemical bond formed through an electrostatic attraction between two oppositely charged ions.
50	Ionization	The process of converting an atom or molecule into an ion by adding or removing charged particles such as electrons or ions.
51	Isotope	Variants of a particular chemical element. While all isotopes of a given element share the same number of protons, each isotope differs from the others in its number of neutrons.
52	Joule	The joule is the standard unit of measure for energy and work.
53	Kelvin	A unit of measurement for temperature. The Kelvin scale is an absolute, thermodynamic temperature scale using as its null point absolute zero.
54	Kinetic energy	Kinetic energy is the energy an object has due to its motion. It is a scalar quantity calculated using the formula KE = ½ * m * v2, where m = mass and v = velocity.
55	Light	Visible light (commonly referred to simply as light) is electromagnetic radiation that is visible to the human eye, and is responsible for the sense of sight.
56	Magnetic field	A mathematical description of the magnetic influence of electric currents and magnetic materials. The magnetic field at any given point is specified by both a direction and a magnitude (or strength); as such it is a vector field.
57	Magnetism	A property of materials that respond to an applied magnetic field.
58	Mass balance	An application of conservation of mass to the analysis of physical systems, also called 'material balance'.

59	Mass density	A materials mass per unit volume, also just called density.
60	Molar mass	A physical property of matter. It is defined as the mass of a given substance divided by its amount of substance. The unit for molar mass is g/mol.
61	Molecule	An electrically neutral group of two or more atoms held together by covalent chemical bonds.
62	Momentum	Momentum is a measurement of mass in motion. Momentum is equal to the mass times the velocity of an object. It is a vector measured in newton-seconds.
63	NanoTechnology	The manipulation of matter on an atomic and molecular scale.
64	Neutrino	An electrically neutral subatomic particle.
65	Nuclear physics	The field of physics that studies the constituents and interactions of atomic nuclei.
66	Newton	The newton is the standard unit of measure for force.
67	Optics	The branch of physics which involves the behaviour and properties of light, including its interactions with matter and the construction of instruments that use or detect it.
68	Ohm	The SI derived unit of electrical resistance.
69	Pascal	The pascal is the standard unit of measure for pressure.
70	Photon	An elementary particle, the quantum of light and all other forms of electromagnetic radiation, and the force carrier for the electromagnetic force.
71	Potential energy	Potential energy is the energy stored by an object due to its state or position. It is measured in joules.
72	Physics	it is the general analysis of nature, conducted in order to understand how the universe behaves.
73	Power	Power is a measurement of the rate at which energy is used. Power is calculated by dividing work over time. The standard unit for power is the watt.
74	Power (electric)	The rate at which electric energy is transferred by an electric circuit.
75	Pressure	The ratio of force to the area over which that force is distributed.
76	Probability	A measure of the expectation that an event will occur or a statement is true.

77	Pressure	Pressure is the force over a given area. Pressure is measured in pascals.
78	Quark	An elementary particle and a fundamental constituent of matter
79	Quantum mechanics	A branch of physics dealing with physical phenomena at microscopic scales, where the action is on the order of the Planck constant.
80	Refraction	Refraction is the change in direction of wave propagation due to a change in its transmission medium.
81	Rotational energy	(or angular kinetic energy) The kinetic energy due to the rotation of an object and forms part of its total kinetic energy.
82	Scalar	A scalar is a measurement that only measures the magnitude. Unlike a vector, a scalar does not have direction.
83	Speed	Speed is the measurement of how fast on object moves relative to a reference point. It is a scalar quantity measured by distance over time.
84	Science	A systematic enterprise that builds and organises knowledge in the form of testable explanations and predictions about the universe.
85	Sound	A mechanical wave that is an oscillation of pressure transmitted through a solid, liquid, or gas, composed of frequencies within the range of hearing.
86	Superconductor	A phenomenon of exactly zero electrical resistance and expulsion of magnetic fields occurring in certain materials when cooled below a characteristic critical temperature.
87	Temperature	A physical property of matter that quantitatively expresses the common notions of hot and cold
88	Vector	A vector is a quantity that has both a magnitude and a direction.
89	Velocity	Velocity is the rate of change in an object's position. Velocity is a vector quantity. The magnitude of velocity is the object's speed.
90	Wave	A disturbance or oscillation that travels through spacetime, accompanied by a transfer of energy.
91	Wavelength	The wavelength of a sinusoidal wave is the spatial period of the wave

92	Wind	The flow of gases on a large scale.
93	X Ray	A high energy photon (between 100 electron volts (eV) and 100 keV),
94	Young's modulus	a measure of the stiffness of a solid material which defines the relationship between stress and strain.
95	Zeeman effect	The effect of splitting a spectral line into several components in the presence of a static magnetic field by the lifting of degeneracy in electronic states.