UNITS

1 Unit of Momentum – $Kgms^{-1}$

2- Unit of length = Meter

3- Unit of Area = Square Meter

4- Unit of time = Second

5- Unit of Capacitor = Farad

6- Unit of Current = Ampere

7- Unit of Resistance = Ohm

8- Unit of temperature = Kelvin

9- Unit of charge = Coulomb

10- Unit of Liquid Volume = Liter

11- Unit of Acceleration = ms^{-2}

12- Unit of Pressure = Pascal or Nm^{-2}

13- Unit of Speed = m/s or Km/h

14- Unit of Volume = Cubic Mete

15.Unit of Mass Kilogram

16- Unit of stress-Nm

17. Unit of spring constant-Ny

18- Unit of elective power- Watt

19. Unit of frequency-Hertz

20 Unit of Specific Heat- $JkgK^{-l}$

21- Unit of weight-Newton

22- Unit of Potential Difference = Volt

23-Unit of work- Joule

24- Unit of energy =Joul

25. Unit of Heat- Joule

26- Unit of force Newton

27. Unit of E.M.F-Volt

28- Unit of intensity of sound = Watt per square meter

29.Unit of Lenses = Diopter

30. In British System Unit of Force Horse Power

31. Unit of Gas = Mole

32- Unit of Torque = Nm

33- Unit of Intensity of Sound- Wm-2

34-Unit of Light- Candela

35. In British System Unit of Time- Second

36. In British System Unit of Length = Foot

37- Unit of Density – Kgm^{-3}

38- Unit of Electric energy = Kilowatt Hour

39- Unit of Tensile Strain- No

40-Unit of Strain- No

41- In British System Unit of Mass – Pound

42- Unit of substance = Mole

43- Unit of Velocity = ms^{-1}

44-Unit of Longitudinal Strain- No

45-Unit of Mechanical Advantage- No

46- Unit of Level of sound = Bel

47- Unit of young's Modulus = Nm

48- Unit of Mass = Kg.

49- Unit of Power = Watt

50-Unit of Density in MKS system = Cubic/Meter

51- Unit of Substance Mole

EQUATION

1- Momentum P =mv

2- Work W = FxS

3- Weight W = mg

4- Stress = Force/Area

5- Law of Smells is n = sini/sinr

6- Ohm's Law is V=IR

7- Frequency is f= I/t

8- Kinetic Energy. Ke=1/2 mv^2.

9- Potential Energy PE=mgh

10- Centrifugal Force= Fr=mv^2/r

11- Friction Fs= µr

12- Centripetal Force Fc = mv^2/r

13- F= ma

14- Mechanical Advantage MA = L/E

15. Mechanical Advantage MA= W/F

16-Speed of Wave V =fƛ

17- M.A of Screw Jack- $2\pi l/h$

18- Formula of Lense 1/f=1/p+1/q

19-Formula of Mirror 1/f =1/p+1/q

20-Law of Refraction = $n_1 \sin\theta_1 = n_2 \sin\theta_2$

21-Efficiency = Output/Input

22- Density = Mass/Volume

23. Equation fo Magnification M-hi/ho

24-Equation of magnification M = Q/P

25-Equation of Capacitor Q = CV

26- Equation of Current I-Q/t

27- Equation of Weight W = mg

28-Equation of Voltage in Series Circuit V= V1 + V2+V3.

29-Equation of Joule Law = $W - I^2Rt$

30-Mechanical Advantage = Load/Effort

31- Volume = Height x Breadth x length

32-formula of the Time Period of Spring Attached Body $T = 2\pi \sqrt{m/k}$

33-Formula of Time Period of Simple Pendulum of Earth $=2\pi \sqrt{l/g}$

34- Einstein E=mc2

35- Equation of Resistance in Parallel circuit 1/Re= 1/R1 + 1/R2 + 1/R3

36- Equation of Resistance in Series Circuit Re = R1 +R2+R3

37-Equation of Current in Parallel Circuit $I = I_1 + I_2 + I_3$

38- Boyle's Law PV= P1V1 = P2 V2

39-First Equation of Motion Vf =Vi+at

40- Second equation of Motion $S = Vit + 1/2\ at^2$

41-Third Equation of Motions $2as = Vf^2 - vi^2$

42- Orbital Velocity Vorb = $\sqrt{GM/R}$

43. Sine θ = Perpendicular/Hypotenuse

44-Cos θ Base/Hypotenuse

45- Tan θ= Perpendicular/Base

46-Cosec θ Hypotenuse/Perpendicular

47-Sec θ=Hypotenuse / Base

48-Cot θ=Base/ Perpendicular

49-Stress F/A

50- Tensile Strain = Change in Length/Original Length

VALUES

1- Least Count of Vernier Calipers = 0.1mm

2- Least Count of Micrometer is 0.01 mm.

3-Mass of Earth-6x 1024 kg

4-Speed of Light is 3 x 10 m/sec

5-Speed of Radio Waves- 3 x 10 m/sec

6-Charge of Electron and Proton is Equal

7.Charge of Electron 1.6x 10^{19} Coulomb

8.Charge on Proton 1.6 x 10^{-19} Coulomb

9-One Horse Power = 746 Watt

10- Diameter of Eye is 2.5 cm

11- Value of g is 9.8ms or 10ms

12-Mechanical Advantage of fixed pully-1

13-Charge on Neutron = No charge

14- Mass of Proton 1.67 x 10^{-27} kg

15-Mass of Neutron 1.67 x 10^{-27} kg

16-Mass of Proton and Neutron is equal

17.Mass of Electron = 9.1×10^{-31} kg

18-Speed of Light in Glass is = 2×10^{8} m/sec

19-Speed of Light in Air is = 3×10^{4} m/s

20- One kilo Pascal is equal to One Thousand Pascals

21- Speed of Sound in Air at Normal Temperature = 340 m/sec

22- Speed of Sound is Air at Zero Centigrade = 330 m/sec

23- Mass of Earth = 6×10^{24} kg

24- Latent Heat of Fusion = 336000/Kg

25- Latent Heat of Vaporization = 226000/Kg

26- Speed of Sound in Air at Normal Temperature- 340 m/sec

27- Mechanical Advantage of Movable Pully-2

28- Equation of Motion = 03

29- Newton's Law = 03

30- Kinds of Motion = 03

32- Ways of Transmission of Heat- 03

33- State of Equilibirum-03

34- Theories of Light = 03

35- Condition of Equilibriums- 02

36- Characteristics of Light-05

37- One Column is equal to 6.25×10^{18} Charge of Electron

38- Electron is Lighter Than Proton and Neutron 1836 Times/

39-Proton and Neutron are heavier than Electron 1836 Times

40- In human ear effect of Sound remains for 1/10 seconds

41- At zero centigrade volume of water is Maximum

42- At zero centigrade density of Water is Minimum.

43- At 4 centigrade Density of Water is Maximum.

44- At 4 centigrade the Volume of Water is Minimum

45- Water contracts from Zero Centigrade to 4 Centigrade

46- In first kind of lever fulcrum is in the center

47- In second kind of lever weight is in the center

48-In third kind of lever force is in the center

49- vector Quantitates. Displacement, Velocity, Force, Acceleration, Momentum, Weight and Torque

50.Scaler Quantitates Mass, speed, distance, time, temperature, and energy

51- Speed of light is 3×10^8 m/sec

52- Mass of Earth-6×10^{24} kg

DEFINITION

1. Rate of doing work is called "Power"
2. Product of mass and velocity is called momentum
3. The rate of change of velocity is called Acceleration.
4. Capacity of doing work is called Energy
5. The rotation effect of a force is called Torque.
6. The force exerted on unit area of an object is called stress.
7. The force exerted perpendicularly on unit area of an object is called pressure.
8. Quantity of Matter in a body is called mass.
9. The ratio between stress and strain is called young modulus."
10. The relationship between stress and strain is called Hook's law.
11. The chang in shape of an object caused due to stress is called strain.
12. If a stress produces a change in length, then the ratio of change in length to original length is called tensile stress.
13. Ratio of output and input is called efficiency.

14. Ratio of load and effort is called mechanical Advantage
15. . Rate of change of displacement is called velocity.
16. Distance covered in unit time is called speed.-
17. In Charlus law pressures remain constant
18. In Boil law temperature remain constant
19. First law of Newton is also called law of inertia.
20. In N. type material charge carrier is Electron
21. Which Store the electrical charge is called capacitor.
22. Voltmeter is always connected in parallel with the resistance to measure the potential difference.-
23. To measure current Ammeter is connect series in the circuit.
24. Galvanometer is sensitive instrument which detects current in a circuit
25. Ammeter is an instrument which measures current.
26. In parallel circuit voltage is always constant.
    a. Resistance is an opposition to the flow of current.
    b. In series circuit current is always constant
27. The substance by which current cannot passes easily is called insulator
28. Which charge on Beta rays? Negative.
29. Which charge on Alfa rays? Positive
30. How many base quantities? Seven
31. How many base units? Seven
32. Flow of Electrons is called current.
33. In P type material charge carries in hole.
34. The substance by which current passes easily is called conductor.
35. Galvanometer will become Voltmeter by connective a high resistance in series
36. How many types of current? Two

    Alternating Current Direct Current
37. An Instrument which can measure length correct up to 0.01 mm is called micrometer.
38. The force with which earth attracts a body towards its center is call
39. The study of internal structure of earth is called Geophysics.
40. The study of Specific properties of matter in solid form is called solid state physics.
41. The study of properties of isolated nuclear of the atoms is called Nuclear physics.
42. Matter is composed of atom and molecules the study of these properties is called and
43. molecular physics.

44. Electromagnetic phenomena and mutual relationship between them is called the study of electromagnetism.
45. The study of biological science on the basic principle of physics is called biophysics.
46. A bar which can move around any point is called leverکThe point around which lever is rotate is called Fulcrum.
47. Viscosity is the force that arises due to the force of friction between different layers of a fluid of flow.
48. The process of change of a liquid into vapors without boiling is called evaporation.
49. The irregular motion of molecules is called Brownian motion.
50. In P-type material charge carrier is Hole.
51. In N-type material charge carrier is Electron.
52. Capacity of doing work is called energy.-
53. Rate of doing work is called "Power"
54. The rotational effect of force is called tarque.
55. The number of protons in a nucleus is called atomic number.
56. A strip of two different metals is used in Thermometer Thermostat and Fire Alarm.
57. A surface whose one end is higher than the other end is called an inclined place.
58. Hydraulic break works on which principal. Pascal's law
59. Transistor works as an Amplifier
60. The total number of protons and neutrons in the nucleus is called the atomic mass number.-
61. Which instrument is used to measure the air pressure? Barometer(
62. which charge on Gamma rays? No charge
63. Concave mirror is that whose inner curved surface is reflecting
64. Convex mirror is that whose outer curved surface is reflecting
65. How many types of transistors? Two
    1 PNP Transistor 2 NPN Transistor
66. Rolling fraction is less than sliding fraction 100 times.-
67. How many kinds of motion? (Three)
    Translatory motion Vibratory Motion Rotatory Motion
68. How many kinds of Translatory Motion? (Three)
    Lenier Motion Random Motion Circular Motion
69. The product of charge and potential difference is equal to energy
70. The product of force and displacement covered in the direction force is called work

71. When increase the temperature of conductor the resistance will be: increase.
72. Ability to do work due to its position is called potential
73. Ability to do work due to its motion is called kinetic
74. Energy of a body due to its height from the surface of the earth called Gravitational Potential Energy.
75. The motion of mass attached to a spring and that of simple pendulum is called S.H. Monten
76. Diode P parts is known as Anode
77. Diode N parts is known Cathode
78. A force which acts on an object moving in a circle and is direct towards the center of the circle is called centripetal force.
79. The density of a body depends upon mass.
80. Kinetic energy depends upon mass.
81. Momentum depends upon mass and velocity.
82. The Unit of inertial depends upon mass and displacement
83. Pitch depends upon frequency.
84. S.H.M depends upon time period
85. Force is directly proportional acceleration
86. Transverse waves consist of crest and trough.
87. When light enters from denser medium to rare medium it turns aways) from perpendicular
88. Whenever light enter from dense medium to rare medium and angle of incidence and angle of reflection from 90" angle with each other then it is called critical angle
89. In reflection of light angle an incident is equal to angle of reflection
90. In total internal reflection angle of incidence is greater than angle of reflection
91. In total internal reflection take place when angle of incidence is greater than the critical angle
92. How many types of spherical mirrors? (Two types)

    Concave mirror convex mirror

93. How many kinds of lenses. (Two kinds)..

    Concave Lense Convex Lense

94. Convex Lense is thicker in center
95. Concave Lense is thinner in the center

Density of Substances in (kgm^{-3})

Air	1.3	Aluminum	2700
Foam	89	Iron	7900
Petrol	800	Copper	8900
Cooking oil	920	Lead	11200
Ice	920	Mercury	13600
Water	1000	Gold	19300
Glass	2500	Platinum	21500