

EVERWIN MATRIC. HR. SEC. SCHOOL

04.07.2019

Material of the Month-July

Std: XI (A-D)

Physics

1. The word physics is derived from the Greek word _____.
a) to know b) fusis c) knowing the truth d) prediction
2. Attempting to explain diverse physical phenomena with a few concepts and laws is _____.
a) unification b) reductionism c) investigation d) discussion
3. An attempt to explain a macroscopic system in terms of its microscopic constituents is _____.
a) investigation b) reductionism c) unification d) observation
4. The study of production and propagation of sound waves is known as _____.
a) Astrophysics b) Optics c) Acoustics d) Thermodynamics
5. The branch of physics which deals with the structure and reaction of the nuclei of atoms is
a) Atomic physics b) Condensed physics c) Nuclear physics d)
6. The actual mass of an electron is _____.
a) $9.01 \times 10^{-23} \text{Kg}$ b) $9.83 \times 10^{-21} \text{Kg}$ c) $9.11 \times 10^{-31} \text{Kg}$ d) $9.5 \times 10^{23} \text{Kg}$
7. The range of astronomical scales to microscopic scales _____.
a) 10^{18}s to 10^{-22}s b) 10^2s to 5^2s c) 10^{19}s to 10^{23}s d) 5s to 15s
8. The parameter such as salinity and gas fluxes are related to _____ in physics.
a) biology b) oceanography c) astronomy d) astrology
9. The age of the earth can be determined by _____.
a) Physics in relation to geology b) Relation to ecology c) Relation to astronomy
10. Quantities that can be expressed in terms of fundamental quantities are called _____.
a) Base quantities b) Physical quantity c) Derived quantity d) fundamental quantity
11. Which of the following is the fundamental quantity?
a) luminous intensity b) velocity c) Pressure d) Force
12. Which of the following is the derived quantity?
a) Temperature b) Electric current c) Mass d) Impulse
13. The basic three units of f.p.s system is _____.
a) force pound second b) foot pound second c) metre second kilogram
d) force pressure speed
14. The SI unit of amount of substance is _____.
a) Kelvin b) Candela c) ampere d) mole
15. One second is the duration of _____ periods of radiation.
a) 921923890 b) 9192631770 c) 910189625 d) 98712675
16. The expression for Plank's constant is _____.
a) energy/Temp b) force x distance c) energy of photon frequency d) Work/Time
17. The unit of magnetic induction is _____.
a) $\frac{\text{tesla}}{\text{m}^3}$ b) Am^{-2} c) $\frac{\text{tesla}}{\text{m}^2}$ d) tesla
18. $1^0 =$ _____ rad a) 1.745×10^{-2} rad b) $2.91 \times 10^{-}$ rad c) 4.85×10^6 rad
19. $1^1 =$ _____ rad a) 4.61×10^3 rad b) 3.85×10^8 rad c) 2.91×10^{-4} rad
20. $1^{11} =$ _____ rad a) 1.74×10^8 rad b) 2.91×10^{10} rad c) 4.85×10^6 rad
21. The value of femto is _____. a) 10^{-18} b) 10^{-12} c) 10^{-15} d) 10^7
22. The least count of screw gauge is _____ mm.
a) 1 mm b) 0.001 mm c) 0.1 mm d) 0.01 mm
23. The least count of vernier caliper is _____.
a) 0.01 cm b) 0.2 cm c) 0.1 mm d) 1 mm
24. The value of Zepto is _____. a) 10^{-24} b) 10^{-18} c) 10^{-21} d) 10^{-9}
25. The method used to find the long distance _____.
a) Triangulation method b) Parallax method c) Radar method d) All the above
26. The distance between the moon and earth can be found using the _____ method.
a) direct method b) indirect method c) parallax method d) radar method
27. If the speed of the signal is $3 \times 10^8 \text{ ms}^{-1}$, time taken to receive the echo is 7 minutes. Find the distance between the planet and earth _____.
a) $6.8 \times 10^{10} \text{ m}$ b) $6.3 \times 10^{10} \text{ m}$ c) $6.4 \times 10^{10} \text{ m}$ d) $6.11 \times 10^{10} \text{ m}$
28. The smallest practical unit of time is _____.
a) shake b) light year c) fermi d) Radius
29. The value of diameter of a proton is _____.
a) 10^4 b) 10^{12} c) 10^{+5} d) 10^{-15}
30. The value of radius of the earth is _____.
a) 10^9 b) 10^8 c) 10^9 d) 10^7

31. The order of mass for sun is _____.
- a) 10^{24} b) 10^{27} c) 10^{30} d) 10^{28}
32. One CSC=_____
- a) 10 times the mass of the sun b) 1.4 times the mass of the sun
c) 1.8 times the mass of the earth
33. What is the order for the period of radio waves?
- a) 10^6 b) 10^8 c) 10^7 d) 10^{-6}
34. Reading an instrument without setting it properly is an example for _____.
- a) Personal error b) Gross error c) Instrumental error
35. Formula for relative error is _____.
- a) $\frac{\Delta a}{\Delta a_i}$ b) $\frac{\Delta m}{a_m}$ c) $\frac{a_m}{\Delta a_m}$ d) $\frac{\Delta a_i}{\Delta a_i}$
36. The resistances $R_1=(100\pm 8)\Omega$ $R_2=(300\pm 2)\Omega$ are connected in series. What is their equivalent resistance?
- a) $(500\pm 20)\Omega$ b) $(400\pm 10)\Omega$ c) $(350\pm 5)\Omega$
37. The number of significant figures in $2.65 \times 10^{24} \text{m}$
- a) three b) eight c) one d) two
38. The number of significant figures in 0.0007
- a) one b) two c) three d) five
39. Round off up to 3 digits (18.35)
- a) 18.3 b) 18.4 c) 18.35 d) 18.36
40. The dimensional formula for faraday constant _____.
- a) $AT \text{ mol}^{-1}$ b) $ML^{-1} T^{-1}$ c) $AT^2 \text{ mol}^{-2}$ d) T^{-2}
41. The dimensional formula for heat capacity _____.
- a) $ML^2T^{-2}K^{-1}$ b) $ML^{-3}K^{-1}T^1$ c) $M^2L^3T^2$ d) $M^3L^4T^{-1}$
42. The dimensional formula for surface tension is _____.
- a) $MT^{-2}L^{-1}$ b) MT^{-2} c) $MT^{-3}L^{-1}$ d) ML^{-1}
43. Refractive index is an example for _____.
- a) Dimensional variables b) Dimensionless variables c) Dimensional constant
44. The unit of pressure in cgs system _____.
- a) Nm^{-2} b) Nm c) dyne/cm² d) dyne/cm
45. If the error in the measurement of radius is 6%, then the error in the determination of volume of the sphere will be _____.
- a) 12% b) 6% c) 18% d) 2%
46. Which of the following pairs of physical quantities have same dimension?
- a) Pressure & torque b) Force & intensity c) Pressure & stress d) Pressure & impulse
47. The centripetal force depends on the a) mass b) velocity c) radius
Which of the following expression for F is dimensionally correct?
- a) $F = \frac{1}{2} mv^2$ b) $F = mgh$ c) $F = \frac{mv^2}{r}$ d) $F = ma$
48. The dimensional formula for centrifugal force is _____.
- a) ML^2T^{-2} b) MLT^{-2} c) ML^{-1} d) $ML^{-1}T^3$
49. The round off value for 3.35 is _____.
- a) 3.3 b) 3.4 c) 3.36 d) 3.35
50. If the physical quantity is given by $x = \frac{a^4 b^2}{c^3}$ the percentage errors of measurement in a, b, c & d are 4%, 6%, 3% respectively, then calculate the percentage error _____.
- a) 32% b) 39% c) 37% d) 36%
51. The dimension of $(\mu_0 \epsilon_0)^{\frac{1}{2}}$ is _____.
- a) length b) time c) velocity d) force
52. Inertia has the same unit as _____.
- a) weight b) force c) mass d) acceleration
53. Sonar emits which of the following waves?
- a) radio b) light c) microwave d) ultrasound
54. The branch of physics deals with the relation between space, time and energy are:
- a) astrophysics b) relativity c) acoustics d) atomic physics
55. _____ system of units was accepted by the scientists of the general conference on weights and measures.
- a) FPS b) CGS c) MKS d) S.I
56. A source having luminous intensity of one candela emits monochromatic radiation of frequency
- a) $54 \times 10^{14} \text{HZ}$ b) $5.4 \times 10^{14} \text{HZ}$ c) $4.5 \times 10^{14} \text{HZ}$ d) $\frac{1}{683} \text{HZ}$