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PHYSICS

1. Unit/Measurement/Measuring Instrument

Q1. Using dimensional analysis, determine which of the following pairs of physical quantities have the same dimensions? (RRB RPF CONSTABLE 2025)

- A) Latent heat and gravitational potential B) Linear momentum and angular momentum C) Force and torque D) Work and power

Correct Answer: **A) Latent heat and gravitational potential**

Q2. The unit of magnetisation is (RRB RPF CONSTABLE 2025)

- A) ampere/metre B) tesla C) weber/metre D) weber

Correct Answer: **A) ampere/metre**

Q3. $1 \text{ kg L}^{-1} = _g \text{ cm}^{-3}$ (RRB RPF CONSTABLE 2025)

- A) 1000 B) 1 C) 100 D) 10

Correct Answer: **B) 1**

Q4. $10^{-9}\text{m} = _A$ (RRB RPF CONSTABLE 2025)

- A) 10 B) 0.1 C) 100 D) 1

Correct Answer: **A) 10**

Q5. Which of the following modern physicist closely examined Newtonian mechanics' foundations? (RRB NTPC GRADUATE 2025)

- A) James Clerk Maxwell B) Ernst Mach C) Galileo Galilei D) Albert Einstein

Correct Answer: **D) Albert Einstein**

Q6. Which of the following has dimensional formula $[M^0L^0T^{-2}]$? (RRB NTPC GRADUATE 2025)

- Strain B) Angular acceleration C) Frequency D) Angular velocity

Correct Answer: **B) Angular acceleration**

Q7. What is the dimensional formula of pressure? (RRB NTPC GRADUATE 2025)

- $[M L T^{-2}]$ B) $[M L^{-2} T^{-2}]$ C) $[M L^2 T^{-2}]$ D) $[M L^{-1} T^{-2}]$

Correct Answer: **D) $[M L^{-1} T^{-2}]$**

Q8. What is the complete set of both base and derived units called? (RRB NTPC GRADUATE 2025)

- System of units B) Scientific model C) Measurement set D) Universal constant system

Correct Answer: **A) System of units**

Q9. What are the units for base quantities called? (RRB NTPC GRADUATE 2025)

- Standard basic units B) Fundamental or base units C) Basic constants D) Derived basic units

Correct Answer: **B) Fundamental or base units**

Q10. Which of the following physical quantities has the dimension $[M L^{-3}]$? (RRB NTPC GRADUATE 2025)

- Energy B) Density C) Pressure D) Work

Correct Answer: **B) Density**

Q11. What is the SI unit of energy? (RRB NTPC GRADUATE 2025)

- Kelvin B) Watt C) Newton D) Joule

Correct Answer: **D) Joule**

Q12. What is the unit of measurement for frequency? (RRB NTPC GRADUATE 2025)

- Hertz (Hz) B) Joule C) Pascal D) Millisecond

Correct Answer: **A) Hertz (Hz)**

Q13. Which of the following is a unit of the dimension 'length'? (RRB NTPC GRADUATE 2025)

- Joule B) Metre C) Ampere D) Kilogram

Correct Answer: **B) Metre**

Q14. If 64 mL water is occupied in a cube, the side length of the cube will be (RRB RPF CONSTABLE 2025)

- A) 8 m B) 4 cm C) 4 m D) 4 mL

Correct Answer: **B) 4 cm**

Q15. If $y=10x/z$ and x has the unit of cm, the unit of z will be (RRB RPF CONSTABLE 2025)

- A) cm^2 B) cm^{-2} C) cm D) cm^{-1}

Correct Answer: **C) cm**

Q16. 1 horse power (hp) = (RRB RPF CONSTABLE 2025)

- A) 746 MW B) 746×10^{-6} MW C) 746×10^{-3} MW D) 746×10^6 MW

Correct Answer: **C) 746×10^{-3} MW**

Q17. The number of significant figures in 1.73 seconds is (RRB RPF CONSTABLE 2025)

- A) two B) four C) three D) one

Correct Answer: **C) three**

Q18. Modulus of elasticity has the dimensions (RRB RPF CONSTABLE 2025)

- A) $[ML^{-1}T^{-2}]$ B) $[MLT^{-2}]$ C) $[ML^{-2}T^{-2}]$ D) $[ML^{-1}T^{-1}]$

Correct Answer: **A) $[ML^{-1}T^{-2}]$**

Q19. Which of the following vector quantities has the same dimensions as of the scalar quantity 'work'? (RRB RPF CONSTABLE 2025)

- A) Torque B) Angular momentum C) Gravitational constant D) Force

Correct Answer: **A) Torque**

Q20. 1 Volt/1 Ampere = (RRB RPF CONSTABLE 2025)

- A) 1 Ohm B) 1 Ohm-m C) 1 Joule D) 1 Coulomb
 Correct Answer: **A) 1 Ohm**
- Q21. What is the unit of transmittance? (RRB RPF CONSTABLE 2025)**
 A) cmsec^{-1} B) cm^{-1} C) It is unitless. D) sec^{-1}
 Correct Answer: **C) It is unitless.**
- Q22. The unit 'foot' belongs to which of the following systems of units? (RRB RPF CONSTABLE 2025)**
 A) CGS system B) FPS system C) MKS system D) SI system
 Correct Answer: **B) FPS system**
- Q23. Electricity is integral to modern life in numerous ways. What is the SI unit for measuring electric current? (RRB RPF CONSTABLE 2025)**
 A) Volt B) Ampere C) Tesla D) Coulomb
 Correct Answer: **B) Ampere**
- Q24. Which of the following quantities is measured using the unit 'quintal'? (RRB RPF CONSTABLE 2025)**
 A) Temperature B) Volume C) Weight D) Length
 Correct Answer: **C) Weight**
- Q25. The commercial unit of electrical energy is (RRB Group-D 25-08-2022 (Shift-II))**
 A) Watt B) Calorie C) Kilowatt hour D) Joule
 Correct Answer: **C) Kilowatt hour**
- Q26. The S.I. unit of resistance is equivalent to: (RRB Group-D 25-08-2022 (Shift-III))**
 A) joule/coulomb B) volt/ampere C) ampere/volt D) coulomb/joule
 Correct Answer: **B) volt/ampere**
- Q27. The physical quantity having a unit of volt/ampere is (RRB Group-D 28-09-2022 (Shift-III))**
 A) work B) Current C) charge D) resistance
 Correct Answer: **D) resistance**
- Q28. The unit of resistance is (RRB Group-D 29-09-2022 (Shift-III))**
 A) Ampere B) Coulomb C) Ohm D) Volt
 Correct Answer: **C) Ohm**
- Q29. The S.I. unit of induced potential difference is: (RRB Group-D 22-08-2022 (Shift-III))**
 A) mV B) A C) V D) mA
 Correct Answer: **C) V**
- Q30. The S.I. unit of resistivity is: (RRB NTPC 08.02.2021 (Shift-II) Stage Ist)**
 A) ohm/m B) ohm C) mho D) ohm m
 Correct Answer: **D) ohm m**

- Q31. Newton is the unit to measure (RRB Group-D-30/09/2022 (Shift-I))**
 A) Power B) Force C) Pressure D) Resistance
 Correct Answer: **B) Force**
- Q32. The SI unit of sound wave frequency was named in honour of which physicist? (RRB NTPC 19.01.2021 (Shift-II) Stage Ist)**
 A) Werner Karl Heisenberg B) Heinrich Rudolf Hertz C) Albert Einstein D) JC Maxwell
 Correct Answer: **B) Heinrich Rudolf Hertz**
- Q33. The work done by a force acting on an object is equal to the amount of force multiplied by the distance travelled in the direction of the force. Which of the following is NOT a unit of work? (RRB NTPC 13.03.2021 (Shift-I) Stage Ist)**
 A) Kgm/sec^2 B) $\text{Kgm}^2/\text{sec}^2$ C) Newton meter D) Joule
 Correct Answer: **A) Kgm/sec^2**
- Q34. The unit of Force is: (RRB NTPC 13.03.2021 (Shift-I) Stage Ist)**
 A) gms^{-1} B) Kgms^{-2} C) gms^{-2} D) Kgms^{-1}
 Correct Answer: **B) Kgms^{-2}**
- Q35. Which of the following is not a unit of temperature? (RRB Group-D 31-10-2018 (Shift-II))**
 A) Fahrenheit B) Pascal C) Celsius D) Kelvin
 Correct Answer: **B) Pascal**
- Q36. The SI unit of electrical resistivity is (RRB Group-D 04-12-2018 (Shift-III))**
 A) Ohm-meter B) Ohm C) Coulomb D) Ampere
 Correct Answer: **A) Ohm-meter**
- Q37. The commercial unit of electric energy is (RRB Group-D 20-09-2018 (Shift-II))**
 A) watt B) kW C) kilowatt-hour D) joule
 Correct Answer: **C) kilowatt-hour**
- Q38. The amount of radiation being emitted by a radioactive material is measured using the conventional unit (RRB NTPC 29.01.2021 (Shift-II) Stage Ist)**
 A) Watt B) Pascal C) Ampere D) Curie
 Correct Answer: **D) Curie**
- Q39. What is measured in 'joules'? (RRB NTPC 28.01.2021 (Shift-I) Stage Ist)**
 A) Energy B) Velocity C) Force D) Power
 Correct Answer: **A) Energy**
- Q40. Henry per meter is the unit of (ALP Stage-II 23.01.2019 (shift - II))**
 A) Watt per steradian B) Electronegativity C) Magnetic permeability D) electrical conductivity

Correct Answer: **C) Magnetic permeability**

- Q41. A light-year is a unit of (RRB NTPC 01.02.2021 (Shift-I) Stage Ist)**
 A) Time B) Intensity of light C) Mass D) Distance

Correct Answer: **D) Distance**

- Q42. Light-year is the unit of - (RRB JE (14-12-2014, Green Paper))**
 A) Time B) Distance C) Speed of light D) Intensity of light

Correct Answer: **B) Distance**

- Q43. What is the SI unit of power of a lens called? (RRB NTPC 13.01.2021 (Shift-II) Stage Ist)**
 A) Hypermetropic B) Dioptre C) Myopic D) Presbyopic

Correct Answer: **B) Dioptre**

- Q44. The SI unit of 'Magnetic Flux' is: (RRB NTPC 03.03.2021 (Shift-II) Stage Ist)**
 A) Farad B) Henry C) Pascal D) Weber

Correct Answer: **D) Weber**

- Q45. Which of the following quantities has the SI unit as Candela? (RRB JE CBT-II 29-08-2019 (evening))**
 A) Impulse B) Velocity C) Force D) Luminous intensity

Correct Answer: **D) Luminous intensity**

- Q46. The rate of doing work is called power. The unit of power is (RRB NTPC 11.02.2021 (Shift-I) Stage Ist)**
 A) Ampere B) Volt C) Kelvin D) Watt

Correct Answer: **D) Watt**

- Q47. Unit of power is known as - (RRB JE (24-05-2019, Shift -I))**
 A) Watt B) Joule C) Newton D) Pascal

Correct Answer: **A) Watt**

- Q48. Which of the following units is used to measure the intensity of sound? (RRB NTPC 25.01.2021 (Shift-I) Stage Ist)**
 A) Pascal B) Curie C) Decibel D) Joule

Correct Answer: **C) Decibel**

- Q49. Unit used for measuring the sound is - (RRB NTPC Stage-I", 22-04-2016, Shift -II)**
 A) Decibel B) Hertz C) Ohm D) Volt

Correct Answer: **A) Decibel**

- Q50. Which of the following units is used for measuring the amount of a substance? (RRB NTPC 28.12.2020 (Shift-I) Stage Ist)**
 A) Lux B) Mole C) Tesla D) Joule

Correct Answer: **B) Mole**

- Q51. What is the SI Unit of amount of substances? (RPF Constable 05.02.2019)**

A) Radian B) Mole C) Jule D) Kelvin

Correct Answer: **B) Mole**

- Q52. S.I. unit of weight is - (RRB JE (24-05-2019, Shift-I))**
 A) Kilogram B) Newton C) Gram D) Dyne

Correct Answer: **B) Newton**

- Q53. Unit of momentum is - (RRB ALP & Tec.(14-08-2018, Shift-II))**
 A) kgms^2 B) kgms^{-1} C) kgms^{-2} D) kgms^2

Correct Answer: **B) kgms^{-1}**

- Q54. Unit of power in industry is (RRB ALP & Tec.(13-08-2018, Shift-III))**
 A) Kilowatt B) Watt C) Joule D) Horsepower

Correct Answer: **D) Horsepower**

- Q55. S.I. unit of electric charge is - (RRB Group-D, 26-11-2018 (Shift-III))**
 A) Volt B) Coulomb C) Kelvin D) kg

Correct Answer: **B) Coulomb**

- Q56. S.I. unit of resistance is - (RRB Group-D, 23-11-2018 (Shift -I))**
 A) Coulomb B) Ohm C) Joule D) Newton

Correct Answer: **B) Ohm**

- Q57. Ohm is unit of which physical quantity? (RRB JE (28-06-2019, Shift -IV))**
 A) Resistance B) Charge C) Voltage D) Current

Correct Answer: **A) Resistance**

- Q58. S.I. unit of stress is - (RRB SSE (21-12-2014, Set-8, Green Paper))**
 A) kg/cm^2 B) N C) N/m^2 D) Watt

Correct Answer: **C) N/m^2**

- Q59. S.I. unit of electric current is - (RRB Group-D, 04-12-2018 (Shift-II))**
 A) Ampere B) Coulomb C) Joule D) Watt

Correct Answer: **A) Ampere**

- Q60. Match the following (RRB SSE (21-12-2014, Set-8, Green Paper))**
 (1) Magnetic flux - (a) Tesla
 (2) Self inductance - (b) Weber
 (3) Magnetic flux density - (c) Henry
 A) 1-b, 2-c, 3-a B) 1-c, 2-a, 3-b C) 1-a, 2-b, 3-c
 D) 1-b, 2-c, 3-a

Correct Answer: **D) 1-b, 2-c, 3-a**

- Q61. Which unit is equal to unit of energy - (RRB ALP & Tec.(21-08-2018, Shift-II))**
 A) Power B) Density C) Work D) Force

Correct Answer: **C) Work**

- Q62. Which of the following has no unit - (RRB ALP & Tec.(29-08-2018, Shift-I))**
 A) Density B) Relative density C) Displacement
 D) Pressure

Correct Answer: **B) Relative density**

Q63. Ampere second is the unit of - (RRB JE (14-12-2014, Red Paper))

- A) Charge B) Power C) Voltage D) Energy

Correct Answer: **A) Charge**

Q64. Gallon is generally used for - (RRB NTPC Stage-I", 31-03-2016, Shift -II)

- A) For velocity B) For a container C) For measuring the volume D) None of these

Correct Answer: **C) For measuring the volume**

Q65. Which unit is used for measuring Astronomical distance? (RRB NTPC Stage-I", 04-04-2016, Shift -II)

- A) Pedometer B) Parsec C) Light year D) Length of Hubble

Correct Answer: **C) Light year**

Q66. S.I. unit of pressure is (RRB Group-D, 04-10-2018 (Shift -1))

- A) Newton/cm² B) Newton-m² C) Newton/m² D) Newton-cm²

Correct Answer: **C) Newton/m²**

Q67. What is the SI unit of pressure? (RRB NTPC 15.03.2021 (Shift-II) Stage Ist)

- A) Pascal B) Radian C) Ampere D) Steradian

Correct Answer: **A) Pascal**

Q68. Nm⁻² is S.I. unit of - (RRB Group-D, 05-11-2018 (Shift -1))

- A) Force B) Repulsion C) Momentum D) Pressure

Correct Answer: **D) Pressure**

Q69. The unit of approximate distance from the earth to the sun is - (RRB NTPC Stage-I , 16-04-2016, Shift -I)

- A) Light year B) Astronomical Unit C) Kelvin D) Joule

Correct Answer: **B) Astronomical Unit**

Q70. S.I. unit of force is - (RRB NTPC Stage-I , 16-04-2016, Shift -II)

- A) Kelvin B) Newton C) Pascal D) Volt

Correct Answer: **B) Newton**

Q71. What is the SI unit of force? (RRB NTPC 30.12.2020 (Shift-II) Stage Ist)

- A) Newton B) Dyne C) Pascal D) Kip

Correct Answer: **A) Newton**

Q72. Which of the following is not correctly matched- (RRB NTPC Stage-I , 30-04-2016, Shift -II)

- A) Frequency - Hertz B) Magnetic flux - Tesla
C) Pressure - Pascal D) Electric conductance - Siemens

Correct Answer: **B) Magnetic flux - Tesla**

Q73. S.I. unit of displacement is - (RRB Group-D, 02-11-2018 (Shift-II))

- A) Meter B) Kilometer C) Centimeter D) Meter per second

Correct Answer: **A) Meter**

Q74. The S.I. unit of 'g' is same as - (RRB Group-D, 13-12-2018 (Shift-II))

- A) Pressure B) Momentum C) Velocity D) Acceleration

Correct Answer: **D) Acceleration**

Q75. Which of the following has same unit ? (RRB Group-D, 12-12-2018 (Shift-III))

- A) Work & Energy B) Force & Pressure C) Force & Momentum D) Force & Work

Correct Answer: **A) Work & Energy**

Q76. Nm²kg⁻² is S.I. unit of - (RRB Group-D, 01-10-2018 (Shift -I))

- A) Pressure B) Momentum C) Acceleration D) Universal constant of gravitation.

Correct Answer: **D) Universal constant of gravitation.**

Q77. Weight has equal S.I. unit of- (RRB Group-D, 12-11-2018 (Shift-II))

- A) Impulse B) Acceleration C) Force D) Mass

Correct Answer: **C) Force**

Q78. Which of the following two physical quantities have the same unit? (RRB Group-D, 09-10-2018 (Shift-II))

- A) Pressure and Force B) Force and Dyne C) Force and Speed D) Force and Weight

Correct Answer: **D) Force and Weight**

Q79. Newton is S.I. unit of ? (RRB Group-D, 01-10-2018 (Shift -1))

- A) Weight and Velocity B) Weight and Force C) Weight and Mass D) Weight and Acceleration

Correct Answer: **B) Weight and Force**

Q80. Which of the following pairs does not have the same S.I. units? (RRB Group-D, 01-10-2018 (Shift-III))

- A) Speed and Velocity B) Work and Energy C) Force and Pressure D) Displacement and distance

Correct Answer: **C) Force and Pressure**

Q81. In the following which pair has not same unit? (RRB Group-D, 05-10-2018 (Shift-II))

- A) Speed and Velocity B) Work and Energy C) Distance and Displacement D) Force and Pressure

Correct Answer: **D) Force and Pressure**

Q82. The international unit of Speed is- (RRB Group-D, 01-10-2018 (Shift-III))

- A) m/s B) km/h C) m/minute D) km/s

Correct Answer: **A) m/s**

Q83. ms^{-2} is S.I. unit of which of the following? (RRB Group-D, 15-10-2018 (Shift-III))

A) Velocity B) Speed C) Force D) Acceleration

Correct Answer: **D) Acceleration**

Q84. Which of the following has S.I. unit Joule / second? (RRB Group-D, 02-11-2018 (Shift-II))

A) Work B) Force C) Thrust D) Power

Correct Answer: **D) Power**

Q85. Volt is S.I. unit of.....? (RRB Group-D, 05-10-2018(shift -1))

A) Resistance B) Electric charge C) Electric current D) Electric potential

Correct Answer: **D) Electric potential**

Q86. What is the unit of electric potential? (RRB JE CBT-II 31.08.2019 IInd Shift)

A) Volt (V) B) Coulomb (c) C) Joule (J) D) Ampere (a)

Correct Answer: **A) Volt (V)**

Q87. S.I. unit of voltage is - (RRB Group-D, 11-12-2018 (Shift-II))

A) Coulomb B) Joule C) Volt D) Watt

Correct Answer: **C) Volt**

Q88. Which of the following is unit of temperature - (RRB Group-D, 15-11-2018 (Shift-II))

A) Degree B) Celsius C) Fahrenheit D) Kelvin

Correct Answer: **D) Kelvin**

Q89. Ohm-m is unit of.....? (RRB Group-D, 05-10-2018 (shift-II))

A) Resistivity B) Electric current C) Charge D) Resistance

Correct Answer: **A) Resistivity**

Q90. has S.I. unit ampere? (RRB Group-D, 03-10-2018 (Shift-III))

A) Voltage B) Electric charge C) Electric current D) Resistance

Correct Answer: **C) Electric current**

Q91. What is the S.I. unit of retardation ? (RRB Group-D, 03-10-2018 (Shift-III))

A) ms^2 B) ms C) ms^{-1} D) ms^{-2}

Correct Answer: **D) ms^{-2}**

Q92. 1Pascal=? (RRB Group-D, 11-12-2018 (Shift-II))

A) $1Nm^{-2}$ B) 100 atmosphere C) 1 dyne cm^{-2} D) 1Nm

Correct Answer: **A) $1Nm^{-2}$**

Q93. Match the following with the correct response- (RRB ALP & Tec.(31-08-2018, Shift-I))

(1) Watt - (a) N-m/sec

(2) 1 Kilowatt - (b) 3.6×10^6

(3) 1 Kilowatt hour - (c) 1000W

(4) 1 Horsepower - (d) 746W

A) 1-A, 2-C, 3-B, 4-D B) 1-A, 2-C, 3-D, 4-B

C) 1-D, 2-B, 3-C, 4-A D) 1-A, 2-B, 3-C, 4-D

Correct Answer: **A) 1-A, 2-C, 3-B, 4-D**

Q94. What is the S.I. unit of wavelength? (RRB JE (26-06-2019, Shift-IV))

A) Hertz B) Kilogram C) Second D) Meter

Correct Answer: **D) Meter**

Q95. Which one of these is a symbol of mole in S.I. unit? (RRB JE (28-06-2019, Shift-IV))

A) g B) mol C) kg D) mg

Correct Answer: **B) mol**

Q96. What is the unit of electric power expenditure? (RRB JE (02-06-2019, Shift-I))

A) kWh B) Joule C) Watt D) Volt

Correct Answer: **A) kWh**

Q97. What is another name for coulomb / second ? (RRB JE (28-05-2019, Shift-III))

A) Joule B) Ampere C) Volt D) Second

Correct Answer: **B) Ampere**

Q98. Lux is the SI unit of (RRB JE (14-12-2019, Green Paper))

A) Intensity of illumination B) Luminous efficiency C) Luminous flux D) Luminous intensity

Correct Answer: **A) Intensity of illumination**

Q99. What is the S.I. unit of wave speed ? (RRB JE (28-05-2019, Shift-III))

A) Meter B) Meter/second C) Second D) Hertz

Correct Answer: **B) Meter/second**

• Measurement

Q100. The luminous efficacy of monochromatic radiation of frequency 540×10^{12} Hz, Kcd, is to be when expressed in the unit lumen per watt. (RRB NTPC UG 2025)

A) 641 B) 683 C) 679 D) 655

Correct Answer: **B) 683**

Q101. Which value has three significant figures? (RRB NTPC UG 2025)

A) 0.0056 B) 23.0 C) 1.620 D) 287.50

Correct Answer: **B) 23.0**

Q102. What is the value of one roentgen (R) when expressed in SI units? (RRB NTPC UG 2025)

A) 1.0×10^{-3} grays B) 3.7×10^{10} disintegrations per second C) 2.58×10^{-4} coulombs per kilogram D) 1.6×10^{-19} coulombs

Correct Answer: **C) 2.58×10^{-4} coulombs per kilogram**

- Q103. What is the value of one carat when expressed in SI units? (RRB NTPC UG 2025)**
A) 200 milligrams B) 1 gram C) 100 milligrams D) 500 milligrams
Correct Answer: **A) 200 milligrams**
- Q104. What is the value of one curie (Ci) in SI units of radioactivity? (RRB NTPC UG 2025)**
A) 6.02×10^8 disintegrations per second B) 1.6×10^{10} disintegrations per second C) 3.7×10^{10} disintegrations per second D) 3.7×10^6 disintegrations per second
Correct Answer: **C) 3.7×10^{10} disintegrations per second**
- Q105. What is the theoretical value of the Stefan-Boltzmann constant (σ) which defines the power emitted per unit area by a black body as a function of its thermodynamic temperature? (RRB NTPC UG 2025)**
A) $5.17 \times 10^{-9} \text{Wm}^{-2}\text{K}^{-4}$ B) $5.35 \times 10^{-10} \text{Wm}^{-2}\text{K}^{-4}$ C) $5.91 \times 10^7 \text{Wm}^{-2}\text{K}^{-4}$ D) $5.67 \times 10^{-8} \text{Wm}^{-2}\text{K}^{-4}$
Correct Answer: **D) $5.67 \times 10^{-8} \text{Wm}^{-2}\text{K}^{-4}$**
- Q106. How many significant figures are there in 2.308 cm? (RRB NTPC UG 2025)**
A) 2 B) 3 C) 4 D) 5
Correct Answer: **C) 4**
- Q107. What is the dimensional formula for mechanical energy that refers to the total energy of an object due to its position and motion? (RRB NTPC UG 2025)**
A) $[M^1L^2T^{-2}]$ B) $[M^2L^2T^{-1}]$ C) $[M^1L^2]$ D) $[ML^2T^{-3}]$
Correct Answer: **A) $[M^1L^2T^{-2}]$**
- Q108. Which of the following physical quantities has zero dimension in mass and time? (RRB NTPC UG 2025)**
A) Force B) Work C) Volume D) Momentum
Correct Answer: **C) Volume**
- Q109. The ampere magnitude is determined by setting the numerical value of the elementary charge equal to (RRB NTPC UG 2025)**
A) $1.624432754 \times 10^{-17} \text{C}$ B) $1.655908436 \times 10^{-18} \text{C}$ C) $1.602176634 \times 10^{-19} \text{C}$ D) $1.611547243 \times 10^{-19} \text{C}$
Correct Answer: **C) $1.602176634 \times 10^{-19} \text{C}$**
- Q110. If we derive an expression for velocity, its dimension should be (RRB NTPC UG 2025)**
A) $M^0L^1T^1$ B) $M L^{-1}T^{-2}$ C) $M^{-1}L^1T^{-1}$ D) $M^0L^1T^{-1}$
Correct Answer: **D) $M^0L^1T^{-1}$**
- Q111. How many mutually independent base quantities are there in the current International System of Units (SI)? (RRB NTPC UG 2025)**
A) 10 B) 7 C) 6 D) 13
Correct Answer: **B) 7**
- Q112. How is the vast distance between galaxies measured? (RRB NTPC UG 2025)**
A) In seconds B) In miles C) In kilometres D) In light years
Correct Answer: **D) In light years**
- Q113. In the International System of Units (SI), which physical factor has the value $6.62607015 \times 10^{-34}$ joule-hertz $^{-1}$? (RRB RPF SI 2024)**
A) Stefan-Boltzmann constant B) Planck's constant C) Von Klitzing constant D) Avogadro constant
Correct Answer: **B) Planck's constant**
- Q114. 1 erg is equal to (RRB RPF SI 2024)**
A) 10^7J B) 10^{-7}J C) 4.186J D) 10^{-5}J
Correct Answer: **B) 10^{-7}J**
- Q115. The SI unit of electric charge is: (RRB RPF SI 2024)**
A) ampere B) ohm C) coulomb D) hertz
Correct Answer: **C) coulomb**
- Q116. Which of the following is the standard unit of energy in the International System of Units (SI)? (RRB RPF SI 2024)**
A) Pascal (Pa) B) Watt (W) C) Newton (N) D) Joule (J)
Correct Answer: **D) Joule (J)**
- Q117. What is the SI unit of luminous intensity? (RRB RPF SI 2024)**
A) watt B) kelvin C) joules D) candela
Correct Answer: **D) candela**
- Q118. A 'light year' is a unit that is use to measure: (RRB NTPC 14.03.2021 (Shift-II) Stage Ist)**
A) Time B) Distance C) Motion D) Speed
Correct Answer: **B) Distance**
- Q119. 1 atmosphere = ? (RRB Group-D, 28-11-2018 (Shift-I))**
A) $1.01 \times 10^5 \text{Pa}$ B) $10.1 \times 10^5 \text{Pa}$ C) $1.01 \times 10^6 \text{Pa}$ D) $10.1 \times 10^6 \text{Pa}$
Correct Answer: **A) $1.01 \times 10^5 \text{Pa}$**
- Q120. 1 horse power is equal to - (RRB ALP & Tec.(20-08-2018, Shift-II))**
A) 764 watt B) 768 watt C) 746 watt D) 786 watt
Correct Answer: **C) 746 watt**
- Q121. What is 746 watt called? (RRB Group D 05-11-2018(Shift-III))**
A) 1 horsepower B) 1 kW C) 1 Pascal D) 1 Joule
Correct Answer: **A) 1 horsepower**

Q122. 1 Diopter is equal to - (RRB JE (02-06-2019, Shift-III))

- A) 1 mm^{-1} B) 1 m^{-1} C) 1 dm^{-1} D) 1 cm^{-1}

Correct Answer: **B) 1 m^{-1}**

Q123. What does a meter equal ? (RRB JE (14-12-2019, Yellow Paper))

- A) 10^{-6} micron B) 10^6 micron C) 10^{-3} micron D) 10^3 micron

Correct Answer: **B) 10^6 micron**

Q124. Sound pollution is measured in- (RRB JE (22-05-2019, Shift-IV))

- A) Decibel B) Joule C) Ampere D) Ohm

Correct Answer: **A) Decibel**

Q125. Loudness of sound is measured in ? (RRB Group-D, 12-11-2018 (Shift-II))

- A) Resonance B) Frequency C) Decibel D) Hertz

Correct Answer: **C) Decibel**

Q126. 1 kWh=? (RRB Group-D, 20-09-2018 (Shift-III))

- A) $3.6 \times 10^5 \text{ J}$ B) $3.6 \times 10^{-6} \text{ J}$ C) $3.6 \times 10^6 \text{ J}$ D) $3.6 \times 10^{-5} \text{ J}$

Correct Answer: **C) $3.6 \times 10^6 \text{ J}$**

Q127. 1 kilowatt is equal to? (RRB Group-D, 26-05-2019 (Shift-III))

- A) 100 watt B) 10000watt C) 10watt D) 1000watt

Correct Answer: **D) 1000watt**

Q128. 1 KW=? (RRB Group-D, 12-11-2018 (Shift-I))

- A) 1000 Js^{-1} B) 100 Js^{-1} C) 10 Js^{-1} D) 10000 Js^{-1}

Correct Answer: **A) 1000 Js^{-1}**

Q129. 5.5 kWh=? (RRB Group-D, 04-12-2018 (Shift-II))

- A) $14.4 \times 10^8 \text{ J}$ B) $14.4 \times 10^5 \text{ J}$ C) $14.0 \times 10^6 \text{ J}$ D) $19.80 \times 10^6 \text{ J}$

Correct Answer: **D) $19.80 \times 10^6 \text{ J}$**

Q130. 5.6 kWh=? (RRB Group-D, 22-09-2018 (Shift-II))

- A) $20.16 \times 10^6 \text{ J}$ B) $14.4 \times 10^6 \text{ J}$ C) $14.4 \times 10^5 \text{ J}$ D) $19.8 \times 10^6 \text{ J}$

Correct Answer: **A) $20.16 \times 10^6 \text{ J}$**

Q131. Atomic radius is measured in- (RRB-JE 30.08.2019, 1st Shift)

- A) Millimeter B) Centimeter C) Kilogram D) Nanometer

Correct Answer: **D) Nanometer**

Q132. 1 Newton = ? (RRB Group-D, 10-12-2018 (Shift-III))

- A) $1 \text{ kg} \times 1 \text{ ms}^1$ B) $1 \text{ kg} \times 1 \text{ ms}^{-2}$ C) $1 \text{ kg} \times 1 \text{ ms}^{-1}$ D) $1 \text{ kg} \times 1 \text{ ms}^2$

Correct Answer: **B) $1 \text{ kg} \times 1 \text{ ms}^{-2}$**

Q133. 4.6 kWh=? (RRB Group-D, 05-12-2018 (Shift-II))

- A) $14.0 \times 10^6 \text{ J}$ B) $16.56 \times 10^6 \text{ J}$ C) $14.1 \times 10^4 \text{ J}$ D) $14.4 \times 10^5 \text{ J}$

Correct Answer: **B) $16.56 \times 10^6 \text{ J}$**

Q134. 2 kWh=? (RRB Group-D, 03-10-2018 (Shift-III))

- A) $360 \times 10^8 \text{ J}$ B) $7.2 \times 10^6 \text{ J}$ C) $3.6 \times 10^{-8} \text{ J}$ D) $360 \times 10^{-8} \text{ J}$

Correct Answer: **B) $7.2 \times 10^6 \text{ J}$**

Q135. 4.2 kWh=? (RRB Group-D, 05-12-2018 (Shift-I))

- A) $14.4 \times 10^5 \text{ J}$ B) $15.12 \times 10^6 \text{ J}$ C) $14.0 \times 10^6 \text{ J}$ D) $14.4 \times 10^6 \text{ J}$

Correct Answer: **B) $15.12 \times 10^6 \text{ J}$**

Q136. 1 Nano meter = ? (RRB Group-D, 16-11-2018 (Shift-I))

- A) $1/10^{-8} \text{ m}$ B) $1/10^{-9} \text{ m}$ C) $1/10^8 \text{ m}$ D) $1/10^9 \text{ m}$

Correct Answer: **D) $1/10^9 \text{ m}$**

Q137. 1 coulomb/1s = ? (RRB Group-D, 12-10-2018 (Shift-III))

- A) 1 volt B) 1 ampere C) 1 ohm D) 1 watt

Correct Answer: **B) 1 ampere**

Q138. 1 Pico meter = ? (RRB Group-D, 20-09-2018 (Shift-III))

- A) 10^{-11} m B) 10^{12} m C) 10^{-12} m D) 10^{11} m

Correct Answer: **C) 10^{-12} m**

Q139. 1 Joule = ? (RRB Group-D, 15-10-2018 (Shift-II))

- A) $1 \text{ N} \times 1 \text{ m}$ B) $1 \text{ W} \times 1 \text{ h}$ C) $1 \text{ N} \times 1 \text{ cm}$ D) $1 \text{ Pa} \times 1 \text{ m}$

Correct Answer: **A) $1 \text{ N} \times 1 \text{ m}$**

Q140. The strength of winds is measured with the help of (RRB JE CBT-II 28-08-2019 (evening))

- A) Tintometer B) Wind indicator C) Barometers D) Beaufort scale

Correct Answer: **D) Beaufort scale**

Q141. Korotkoff sounds are observed during measuring the- (R.R.B. JE. Stage - II 01-09-2019 (Shift - III))

- A) Electrical insulation B) Atmospheric pressure C) Blood pressure D) Speed of wind flow

Correct Answer: **C) Blood pressure**

Q142. A particular household has consumed 100 unit of energy during 5 days. How much energy is this converted to Joule. (RRB Group-D, 03-12-2018 (Shift-II))

- A) $7.2 \times 10^8 \text{ J}$ B) $7.2 \times 10^6 \text{ J}$ C) $7.2 \times 10^3 \text{ J}$ D) $3.6 \times 10^8 \text{ J}$

Correct Answer: **D) $3.6 \times 10^8 \text{ J}$**

• **Measuring Instrument**

Q143. Which instrument aids in the detection of the heartbeat? (RRB Group-D-02/09/2022 (Shift-III))

- A) Stethoscope B) Thermometer C) Spirometer D) Sphygmomanometer

Correct Answer: **A) Stethoscope**

Q144. Name the instrument used by the physicians to measure blood pressure. (RRB Group-D-09/09/2022 (Shift-III))

- A) Echocardiogram B) Sphygmomanometer C) Stethoscope D) Spirometer

Correct Answer: **B) Sphygmomanometer**

Q145. Which of the following does NOT match? (RRB NTPC 23.02.2021 (Shift-I) Stage Ist)

- A) Compass used for navigation and indicates north-south directions B) Cyclotron measures the intensity of Cyclones C) Actinometer measures small magnitude radiation D) Electroscope detects the presence of electric charge

Correct Answer: **B) Cyclotron measures the intensity of Cyclones**

Q146. Which instrument is used to detect the presence of electric charge on an object? (RRB NTPC 19.03.2021 (Shift-I) Stage Ist)

- A) Multimeter B) Electroscope C) Amperemeter D) Ohmmeter

Correct Answer: **B) Electroscope**

Q147. What does a hygrometer measure? (RRB NTPC 27.01.2021 (Shift-II) Stage Ist)

- A) Heat B) Humidity C) Force D) Radiation

Correct Answer: **B) Humidity**

Q148. A lie detector apparatus is also known as a: (RRB NTPC 01.02.2021 (Shift-II) Stage Ist)

- A) Seismograph B) Barograph C) Polarimeter D) Polygraph

Correct Answer: **D) Polygraph**

Q149. Which of the following is a lie detector machine? (RRB NTPC 03.03.2021 (Shift-I) Stage Ist)

- A) Telescope B) Photometer C) Polygraph D) Tachometer

Correct Answer: **C) Polygraph**

Q150. Which instrument is used to show the direction of flow of current in a circuit? (RRB NTPC 19.01.2021 (Shift-I) Stage Ist)

- A) Galvanometer B) Ammeter C) Rheostat D) Voltmeter

Correct Answer: **A) Galvanometer**

Q151. Which of the following devices is used to measure relatively high temperature, such as are encountered in furnaces? (RRB NTPC 07.01.2021 (Shift-II) Stage Ist)

- A) Bolometer B) Pyrometer C) Ammeter D) Fluxmeter

Correct Answer: **B) Pyrometer**

Q152. Which device is used in submarines to see things above the level of the sea ? (RRB NTPC 10.04.2016 (SHIFT-III) Stage-I)

- A) Pyrometer B) Epidiascope C) Periscope D) Odometer

Correct Answer: **C) Periscope**

Q153. Which instrument is used to measure atmospheric pressure? (RRB NTPC (12.04.2016) SHIFT) Stage- I)

- A) Lactometer B) Barometer C) Thermometer D) Multimeter

Correct Answer: **B) Barometer**

Q154. Which among the following devices is used to measure the atmospheric pressure? (RRB NTPC 10.01.2021 (Shift-I) Stage Ist)

- A) Tetrameter B) Odometer C) Thermometer D) Barometer

Correct Answer: **D) Barometer**

Q155. Which device is used to see the Sun? (RRB NTPC 10.04.2016 (SHIFT-I) Stage-I)

- A) Stroboscope B) Telescope C) Helioscope D) Sun meter

Correct Answer: **C) Helioscope**

Q156. Potentiometer basically (RRB J.E. (14.12.2014), Green paper)

- A) Is a measuring instrument B) Is a connective device C) Is a calibration equipment D) Is a notation tool

Correct Answer: **A) Is a measuring instrument**

Q157. From which device is the electric current measured? (RRB J.E. (14.12.2014), Red paper)

- A) Voltmeter B) Ammeter C) Ohmmeter D) Wavemeter

Correct Answer: **B) Ammeter**

Q158. Ammeter is - (RRB J.E. (14.12.2014, Set-2), Red paper)

- A) Is connected in a series to the circuit B) Must have the following legitimate resistance C) Draws less power D) All of the above

Correct Answer: **D) All of the above**

Q159. What does stalagmometer used to measure? (RRB SSE 21.12.2014)

A) Dynamic viscosity B) Surface tension C) Refractive index D) Lighted activity

Correct Answer: **B) Surface tension**

Q160. Odometer is an instrument which is used in motor vehicle for measuring- (RRB Group - D, 10-10-2018 (Shift-III))

A) Direction B) Distance C) Smell D) Speed

Correct Answer: **B) Distance**

Q161. Odometer in vehicle measures (RRB Group - D, 25-10-2018 (Shift-II))

A) Fuel B) Distance C) Smell D) Speed

Correct Answer: **B) Distance**

Q162. Which instrument is used for measuring distance travelled by vehicle? (RRB Group-D,05-11-2018(Shift-II))

A) Accelerometer B) Odometer C) Speedometer D) Tachometer

Correct Answer: **B) Odometer**

Q163. Which of the following speed of flow measuring instrument is area meter? (RRB SSE 21.12.2014)

A) Venturimeter B) Rotameter C) Pitot tube D) None of these

Correct Answer: **B) Rotameter**

Q164. Tachometer is used for- (RRB J.E. 2014(14-12-2014, Green Paper))

A) R.P.M. B) Torque C) Rotational kinetic energy D) Distance

Correct Answer: **A) R.P.M.**

Q165. Multimeter consist of- (RRB J.E. 2014(14-12-2014, Green Paper))

A) Current and Ohm meter B) Voltmeter & Ohm meter C) Voltmeter & Current D) Voltmeter, Currentmeter & Ohm meter

Correct Answer: **D) Voltmeter, Currentmeter & Ohm meter**

Q166. What is false about richter scale? (RRB NTPC Stage-I 03.04.2016 (SHIFT-I))

A) It was developed by Charles Richter and Gutenberg in 1935. B) It is a logarithmic scale C) It can be measured using seismometer D) A magnitude of 8-9 on the Richter scale means a light earthquake.

Correct Answer: **D) A magnitude of 8-9 on the Richter scale means a light earthquake.**

Q167. Instrument used for measuring density of liquid is- (RRB NTPC Stage-I 05.04.2016 (SHIFT-I))

A) Hygrometer B) Hydrometer C) Hypsometer D) Fathometer

Correct Answer: **B) Hydrometer**

Q168. Which instrument is used for discovering the things in water? (RRB NTPC Stage-I 28.03.2016 (SHIFT-II))

A) Laser B) Radar C) Sonar D) Scuba

Correct Answer: **C) Sonar**

Q169. Echolocation in ships is used for measuring- (RRB Group- D, 12-11-2018(Shift-1))

A) Depth of light B) Density of fish C) Depth of water D) Density of oceanic vegetation

Correct Answer: **C) Depth of water**

Q170.is type of Echolocation - (RRB Group -D, 01-11-2018 (Shift-II))

A) Vibration B) Frequency C) Radar D) Sonar

Correct Answer: **D) Sonar**

Q171. Which instrument is used for measuring density of milk? (RRB Group- D,12-11-2018(Shift-III))

A) Hydrometer B) Lactometer C) Barometer D) Thermometer

Correct Answer: **B) Lactometer**

Q172. Voltmeter is used for measuring- (RRB J.E., 29-05-2019(Shift-III))

A) Air resistance B) Voltage C) Magnetic flux D) Electric current

Correct Answer: **B) Voltage**

Q173. Which instrument is used for measuring voltage? (RRB Group- D, 08.10.2018 (Shift-I))

A) Ammeter B) Potentiometer C) Galvanometer D) Voltmeter

Correct Answer: **D) Voltmeter**

Q174. Galvanometer is used for measuring- (RRB Group- D, 24-09-2018(Shift-1))

A) Direction of speed B) Direction of magnetic flux C) Direction of sound D) Direction of current

Correct Answer: **D) Direction of current**

Q175. Which of the following is used to detect current in a circuit? (RRB NTPC Stage-I 26.04.2016 (SHIFT-II))

A) Galvanometer B) Anemometer C) Barometer D) Lactometer

Correct Answer: **A) Galvanometer**

Q176. Which is used for measuring speed of motor- (RRB Group- D,05-11-2018(Shift-I))

A) Speedometer B) Voltmeter C) Velometer D) Lactometer

Correct Answer: **A) Speedometer**

Q177. Ammeter: Electric current:: Ohmmeter?: (RRB Group -D, 03-10-2018 (Shift-II))

A) Voltage B) Pressure C) Resistance D) Speed