Dimensional Formulae of Some Physical Quantities

No.	Physical Quantity	Formula	Dimensional Formulae
1.	Work (W)	$W = F\,d\cos\theta$	$[ML^2T^{-2}]$
2.	Stress	$\text{Stress} = F/A$	$[ML^{-1}T^{-2}]$
3.	Torque (τ)	$\tau = Fr$	$[ML^2T^{-2}]$
4.	Moment of Inertia (I)	$I = Mr^2$	$[ML^2]$
5.	Coefficient of viscosity (η)	$\eta = F/6\pi rv$	$[ML^{-1}T^{-1}]$
6.	Gravitational constant (G)	$G = \frac{Fr^2}{m_1 m_2}$	$[M^{-1}L^3T^{-2}]$
7.	Specific heat (S)	$S = \frac{Q}{m\,\Delta t}$	$[L^2T^{-2}\theta^{-1}]$
8.	Coefficient of thermal conductivity (K)	$K = \frac{Ql}{A(\theta_1 - \theta_2)\,t}$	$[MLT^{-3}\theta^{-1}]$
9.	Universal gas constant (R)	$R = \frac{PV}{T}$	$[ML^2T^{-2}\theta^{-1}]$
10.	Potential (V)	$V = \frac{W}{q}$	$[ML^2T^{-3}A^{-1}]$
11.	Intensity of electric field (E)	$E = \frac{F}{q}$	$[MLT^{-3}A^{-1}]$
12.	Permittivity of free space (ε_0)	$\varepsilon_0 = \frac{1}{4\pi F}\frac{q_1 q_2}{r^2}$	$[M^{-1}L^{-3}T^4A^2]$
13.	Specific resistance (ρ)	$\rho = \frac{RA}{l}$	$[ML^3T^{-3}A^{-2}]$
14.	Magnetic Induction (B)	$B = \frac{F}{i\,l\sin\theta}$	$[MT^{-2}A^{-1}]$
15.	Planck's constant (h)	$h = \frac{E}{\nu}$	$[ML^2T^{-1}]$
16.	Boltzmann's constant (k)	$k = \frac{R}{N}$	$[ML^2T^{-2}\theta^{-1}]$
17.	Entropy (S)	$S = \frac{\Delta Q}{T}$	$[ML^2T^{-2}\theta^{-1}]$
18.	Decay constant (λ)	$\lambda = \frac{0{\cdot}693}{T}$	$[T^{-1}]$
19.	Bohr magnetic (μ_B)	$\mu_B = \frac{eh}{4\pi m}$	$[L^2A]$
20.	Thermionic current density (J)	$J = \frac{I}{A}$	$[AL^{-2}]$