Meaning of Physical Symbols for Competitive Exams

Quantity	Symbol	SI unit	Symbol for SI Unit	Non-SI unit used
Absorbed dose	D	Gray	$\mathrm{Gy} = \mathrm{Jkg}^{-1}$	
Acceleration	a	Metre per second squared	ms^{-2}	
Acc. due to gravity	g	Metre per second squared	ms^{-2}	
Activity	A	Becquerel	Bq	
Amount of substance	n	Mole	mol	
Amplitude	A	Metre	m	
Angle	θ	Radian	rad	degree $\left(^0\right)$ minute $\left(\prime\right)$ second $\left(\prime\prime\right)$
Angular velocity	ω	Radian per second	rad s^{-1}	rmp
Area	A	Metre squared	m^2	are $(a) = 100\ m^2$ hectare (ha) $= 100a = 10{,}000\ m^2$
Atomic number	Z			
Capacitance	C	Farad	$F = \mathrm{CV}^{-1}$	
concentration	c	Mole per liter	mol l^{-1}	ppm; $\%\left(\frac{w}{v}\right), \%\left(\frac{v}{v}\right)$

Critical angle	C			
density	ρ	Kilogram per meter cubed	km^{-3}	$g\ \mathrm{cm}^{-3}$
Displacement	s	Meter	m	
Dose equivalent	H	Sievert	$\mathrm{Sv} = J\ \mathrm{kg}^{-1}$	
Electric current	I	Ampere	A	
Electric field strength	E	Volt per metre	$V\ m^{-1} = N\ C^{-1}$	
Electronic charge	e	Coulomb	$C = A\ s$	
Energy (electrical)	W	Joule	$J = N\ m$	$\mathrm{kW}\ h$
Energy (heat)	Q	Joule	J	
Energy (kinetic)	E_k	Joule	J	
Energy (potential)	E_p	Joule	J	
Energy (food)		Joule	J	$\mathrm{kcal} = 4182J = 1\ \mathrm{Cal}$
Enthalpy	h	Joule	J	
Focal length	f	Meter	m	
Frequency	f	Hertz	$\mathrm{Hz} = s^{-1}$	
half- life	$T_{\frac{1}{2}}$	Second	s	
Length (distance)	l, s	Metre	m	
Magnetic flux	Φ	Weber	Wb	
Magnetic flux density	B	Tesla	$T = \mathrm{Wb}\ m^{-2}$	
Magnification	m			
Mass	m	Kilogram	kg	$\mathrm{tonne}\ (t) = 1000\ \mathrm{kg}$
Mass number	A			

Molarity		Mole per liter	mol l^{-1}	
Moment of a force	M	Newton metre	$N\ m$	
Moment of inertia	I	Kilogram metre squared	kg m^2	
Momentum	p	Kilogram metre per second	kg $m\ s^{-1}$	
Permittivity	ε	Farad per metre	$F\ m^{-1}$	
Periodic time	T	Second	s	
Power	P	Watt	$W = \mathrm{Js}^{-1}$	
Refractive index	n			
Resistance	R	ohm	$\Omega = V\ A^{-1}$	
Resistivity	ρ	ohm meter	$\Omega\ m$	
Speed	u, v	Meter per second	$m\ s^{-1}$	knot $= 0514\,\mathrm{ms}^{-1}$
Sound intensity	I	Watt per meter squared	$W\ m^{-2}$	
Sound intensity level	$I.L.$			bel($1B = 10\,\mathrm{dB}$)
Specific heat capacity	c	Joule per kilogram per kelvin	$J\ \mathrm{kg}^{-1}\ K^{-1}$	
Strain	ε			
Stress	σ	Newton per meter squared	$\mathrm{Pa} = N\ m^{-2}$	
Temperature	T	Kelvin	K	
Temperature	t, θ	Newton	$^{\circ}C$	

Change in temperature	$\Delta\theta$	Kelvin	K	
Tension	T	Newton	N	
Thermal conductivity	k	Watt per meter per kelvin	$\mathrm{Wm}^{-1}\ K^{-1}$	
Time	t	Second	s	minute (min) day (d) hour(h) year(y)
Torque	T	Newton metre	$N\ m$	
Velocity	u, v	Metre per second	$m\ s^{-1}$	
Voltage *potential difference*	V	Volt	$V = J\ C^{-1}$	
U-value		Watt per meter squared per kelvin	$\mathrm{Wm}^{-2}\ K^{-1}$	
Volume	V	Metre cubed	m^3	litre (l) $= 1000\ \mathrm{cm}^3$
Wavelength	λ	Meter	m	
Weight	W	Newton	$N = \mathrm{kgms}^{-2}$	
Work	W	Joule	$J = \mathrm{Nm}$	
Young's modulus	E	Newton per metre squared	$\mathrm{Pa} = N\ m^{-2}$	

Physical Symbols

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