

## Basic Units and Prefixes for Competitive Exams

### Units of measurement

#### Base units

The International System of Units (System International d 'Unites') is founded on seven base quantities, which are assumed to be mutually independent. These base units are:

Base quantity	SI hast unit	Symbol for unit
Length ( $l$ )	Metre	$m$
Mass ( $m$ )	Kilogram	$kg$
Time ( $t$ )	Second	$s$
Electric Current ( $I$ )	Ampere	$A$
Temperature ( $T$ )	Kelvin	$k$
Amount of substance ( $n$ )	Mole	$mol$
Luminous intensity	Candela	$cd$

THE INTERNATIONAL SYSTEM OF UNITS

#### Prefixes

Prefixes are used to form decimal multiples and submultiples of Si units. The common prefixes are:

Factor	Prefix	Symbol
$10^{12}$	tera	T
$10^9$	giga	G

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$10^6$	mega	M
$10^3$	kilo	k
$10^2$	hecto	h
$10^1$	deka	da
$10^{-12}$	pico	p
$10^{-9}$	nano	n
$10^{-6}$	micro	$\mu$
$10^{-3}$	milli	m
$10^{-2}$	centi	c
$10^{-1}$	deci	d

*PREFIXES ARE USED TO FORM DECIMAL MULTIPLES AND SUBMULTIPLES OF SI UNITS*

The symbol for a prefix is combined with the unit symbol to which it is attached to form a new unit symbol, e.g. kilometer (km), milligram (mg), microsecond ( $\mu$ s).