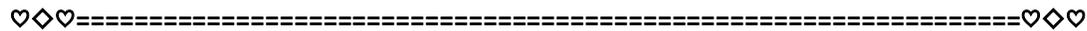


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**Paper**                    **Basic lab calculation**



**Q 1.**

**Ans: Basic properties:** quantity in the special sense is a measurable or assignable characteristic that is attributed to a specific phenomenon object or substance. Examples include the mass of the moon and the electric charge of a proton. Physical quantity is the quantity that can be used in mathematical equations of science and technology. A unit is a specific physical quantity, defined and adopted by convention where by certain other quantities of the same type are compared to Express its value. All physical quantities can be expressed in terms of seven basic units.

<b>Basic Quantity</b>	<b>Name</b>	<b>symbol</b>
Length	meter	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	Kelvin	K
Amount of substance	mole	mol
Luminous intensity	candela	CD

**Derived properties:** the other quantities called derived quantities are defined in terms of the seven basic quantities via a system of quantity equations. The SI-derived units are obtained for these quantities derived from these equations and the seven base units of the Example of these SI derived units are given in table 2 where it should be noted that the symbol 1 for quantity with dimensions 21 such as the mass fraction is generally omitted.

Derived Quantity	Name	Expression in terms of SI units
Area	square, meter	m <sup>2</sup>
Volume	cubic meter	m <sup>3</sup>
acceleration	meter per second square	m/s <sup>2</sup>
Mass, density	kilogram per cubic meter	kg/m <sup>3</sup>
Speed, velocity	meter per second	m/s
Force	newton (N)	m.kg.s <sup>-2</sup>
Pressure	Pascal	m <sup>-1</sup> .kg.s <sup>-2</sup>
Energy, work	joule (J) N-m	m <sup>2</sup> .kg.s <sup>-2</sup>
Electric charge	coulumb (C)	s.A

### Symbols

Pi	$\pi$	( $\pi$ )
Beta	$\beta$	$\beta$
Gamma	$\Gamma$	$\gamma$
Omega	$\Omega$	$\omega$
Upsilon	$\Upsilon$	U

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Q 2.

Ans:

SI prefix

1. Deca	E	$10^1$
2. Kilo	K	$10^3$
3. Centi	C	$10^{-2}$
4. Giga	G	$10^9$
5. Nano	N	$10^{-9}$
6. Pick	P	$10^{-12}$

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**Q 3.**

**Ans:**

	<b>Letter</b>	<b>symbol</b>
•	Beta	B, $\beta$
•	Gamma	$\Gamma$ , $\gamma$
•	Pi	$\pi$ , $\Pi$
•	Epsilon	E, $\epsilon$
•	Omega	$\omega$ , $\Omega$
•	Infinity	$\infty$ , $\infty$

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