

CLASS: XI

SUBJECT: PHYSICS

WORKSHEET NO: 2

Systems of units

- (i) CGS system: It is based on 'centimetre' (cm), 'gram' (g) and 'second' (s) as fundamental units of length, mass and time respectively. It is a metric system.
- (ii) FPS system: It is the British system which uses 'foot' (ft), 'pound' (lb) and 'second' (s) as fundamental units of length, mass and time respectively.
- (iii) MKS system: It uses 'metre' (m), 'kilogram' (kg) and 'second' (s) as fundamental units of length, mass and time respectively.

Later on, a fourth fundamental unit 'ampere' (A) for electric current was added to it and then it was called as MKSA system of units. It is also a metric system.

(Page-2)
(iv) SI system: The system was internationally accepted in 1960. SI is the abbreviation of 'Système International' Unites, which is French equivalent of 'International system of units'. It is based on the following seven basic units and two supplementary units.

Basic Units

<u>S.No.</u>	<u>Name of quantity</u>	<u>Name of Unit</u>	<u>Symbol</u>
1.	length	metre	m
2.	mass	kilogram	kg
3.	time	second	s
4.	Electric current	ampere	A
5.	thermodynamic temperature	Kelvin	K
6.	amount of substance	mole	mol
7.	luminous intensity	Candela	cd

Supplementary Units

<u>S.No.</u>	<u>Name of quantity</u>	<u>Name of Unit</u>	<u>Symbol</u>
1.	plane angle	radian	rad
2.	solid angle	steradian	sr

Like CGS and MKS system, the SI is also a metric system.