

Board - CBSE

Class - 12

Topic - Units and Measurements

Very Short Answer Type 1 Mark Questions

1.	Define physical quantities
	Ans:
2.	Distinguish between fundamental and derived quantities
	Ans:
3.	Define one metre
	Ans:
4.	Define one kilogram
	Ans:
5.	Define one second.
	Ans:
6.	Define the SI unit of the following physical quantities (i) Temperature (ii) Luminous intensity
	Ans:
7.	Define one radian.
	Ans:
8.	Define one Ste radian.
	Ans:
9.	Give the relation between light year and metre.
	Ans:
10.	Write two advantages in choosing the wavelength of light radiation as a standard of length
	Ans:
11.	What is the difference between 5.0 and 5.000?
	Ans:
12.	Write the uses of the dimensional analysis.
	Ans:

13.	Write the dimensional equation for force.
	Ans:
14.	Write the dimensional representation for torque.
	Ans:
15.	Give the relationship between calorie and joule.
	Ans:

Short Answer Type 2 Mark Questions

1.	Write four limitations of dimensional analysis.
	Ans:
2.	If $(P + a/V^2)(V - b) = RT$, Where the difference symbols have their usual meaning then what are the dimensions of (a/V^2) and b .
	Ans:
3.	Write the dimensions of the following (i) Electric intensity (ii) Electric Potential (iii) E.M.F. of a cell (iv) Electrical resistance
	Ans:
4.	Write the dimensions of the following (i) Specific Resistance (II) Magnetic flux (III) Electric flux (IV) Magnetic Induction
	Ans:
5.	Write the dimensions of the following (i) Conductance (ii) Electric Permittivity (iii) Magnetic Permeability (iv) Coefficient of Self Inductance
	Ans:
6.	Solve the following to correct significant figures (i) $5.1 + 13.235$ (ii) $7.54 + 18.1295$ (iii) $14.632 - 5.52345$ (iv) 3.021×11
	Ans:
7.	Define mean scalar second.
	Ans:
8.	Define second in terms of Cs–133 vibrations.
	Ans:

Short Answer Type 3 Mark Questions

1.	Answer the following (a) You are given a thread and a meter scale. How will you estimate the diameter of this thread? (b) A screw gauge has a pitch of 1.00mm and 200 divisions on the circular scale. Do you think it is possible to increase the accuracy of the gauge arbitrarily by increasing the number of divisions on the circular scale?
	Ans:
2.	Explain briefly how you will estimate the size of the molecule of oleic acid.
	Ans:
3.	Explain how will you estimate the distance of a planet or star by using parallax method.
	Ans:
4.	Find the area of a circle of radius 3.458 cm up to correct significant figures.
	Ans:
5.	If the % error in the measurement of the radius R of a sphere is 0.2%, then calculate the % error in its volume.
	Ans:
6.	. A laser light beamed towards the moon takes 2.56 sec to return to the earth after the reflection on the moon 's surface. What is the distance of the moon from the earth?
	Ans: