



Date: 11/07/22
GRADE: IX

MONTHLY TEST -01 (2022-23)
PHYSICS (042)

Max marks: 20
Time: 1 Hour

General Instructions:

1. There are 9 questions in the question paper.
2. All questions are compulsory.

Qn. No		Marks allocated
SECTION A		
1	<p>Which among the following is the dimensional formulae for charge?</p> <p>A. $[M^0L^0TA]$</p> <p>B. $[ML^2T^3A^{-2}]$</p> <p>C. $[M^0LT^{-1}]$</p> <p>D. $[MLT^{-2}]$</p>	1
2	<p>Choose the correct answer from the following after Rounding off the number 18.35 up to 3 digits.</p> <p>A. 18.4</p> <p>B. 18.3</p> <p>C. 18.2</p> <p>D. 18.30</p>	1
3	<p>Assertion: When we change the unit of measurement of a quantity, its numerical value changes.</p> <p>Reason: Smaller the unit of measurement smaller is its numerical value.</p> <p>A. Assertion is correct, reason is correct, reason is a correct explanation for assertion.</p> <p>B. Assertion is correct, reason is correct, reason is not a correct explanation for assertion.</p> <p>C. Assertion is correct, reason is incorrect.</p> <p>D. Assertion is incorrect, reason is correct.</p>	1

4	Light year is the unit of – A. Time B. Distance C. Area D. Density	1
SECTION B		
5	Add 7.21, 12.14 and 0.0028 and express the result to an appropriate number of significant figures.	2
SECTION C		
6	A. State the principle of homogeneity of dimensions. B. Test the dimensional consistency of the given equations. 1. $s = ut + \frac{1}{2} at^2$ 2. $v = u + at$	3 (1+2)
7	A. What are fundamental and derived units? B. Which are the seven fundamental quantities in an SI unit System?	3 (2+1)
8	The distance covered by a particle in time t is given by $x = a+bt^2+ct^2+dt^3$, find the dimensions of a, b, c and d.	3
SECTION D		
9	A gas bubble from an explosion under water, oscillates with a period T proportional to $P^a d^b E^c$ where p is the static pressure, d is the density of water and E is the total energy. A. Find the values a, b, c. B. Write any three advantages of SI system.	5 (3+2)
THE END		