

SARALA BIRLA PUBLIC SCHOOL



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PUBLIC SCHOOL

(SARALA BIRLA GROUP OF SCHOOLS)

Mahilong, Ranchi.

Revision Test (Physics)

Class - XI

1. Number of Fermi in one metre is
(a) 10^6 fermi (b) 10^{17} fermi (c) 10^{15} fermi (d) 10^{14} fermi
2. Dimensional formula of Work is same as that of
(a) Linear momentum (b) force (c) energy (d) mass

In the following questions a statement of assertion followed by a statement of reason is given.

Choose the correct answer out of the following choices.

Assertion and reason both are correct statements and reason is correct explanation for assertion.

Assertion and reason both are correct statements but reason is not correct explanation for assertion.

Assertion is correct statement but reason is wrong statement.

Assertion is wrong statement but reason is correct statement.

3. Assertion :- Light year and wavelength both measure distance
Reason: - Both have dimensions of time
(a) A (b) B (c) C (d) D
4. Assertion:- Mass, length and time are fundamental physical quantities.
Reason:- They are independent of each other
(a) A (b) B (c) C (d) D
5. Which type of frictional force is called self adjusting frictional force and why?
6. State and derive parallelogram law of vector addition.
7. Magnitude of force F experienced by a certain object moving with speed v is given by $F = kv^3$, where k is a constant. Find the dimension of k
8. Find the value of 60 W on a system having 50 g , 10 cm , and 2 min as the fundamental units.
9. Show that in an elastic one dimensional collision, the relative velocity of approach before collision is equal to the relative velocity of separation after collision.
10. Prove that the path of a projectile for an angular projection is a parabolic path.(ii) For the same projectile motion find the expression for time of flight, Horizontal range and Maximum height. (iii) What is the condition for a projectile to achieve its maximum range?
11. Why banking of a road is necessary? Derive the expression for the maximum velocity required for a car on a banked road by taking into account the force of friction for safe turn.