



ST. JOSEPH STUDY CENTRE

11th STD: Mid Term Test-1

PHYSICS

Timing: 1 Hr 30 mins / Total Marks: 50

I. Answer any 5 of the following questions:

[5 x 2 = 10]

1. What is the triple point of water?
2. What does the principle of homogeneity of dimension say? Give an example.
3. Define momentum and write its component form.
4. Write the equation of rotational motion.
5. State Newton's third law.
6. Define Impulse

II. Answer any 5 of the following questions:

[5 x 3 = 15]

7. Why is the cylinder used in defining kilogram is made up of platinum – iridium alloy?
8. Write in brief about accuracy and precision.
9. What are the three Dimensions of motion? Give example for each
10. Derive the relation between linear acceleration and angular acceleration.
11. What are concurrent force? State Lami's theorem?
12. State few methods to reduce friction.

III. Answer any 5 of the following questions:

[5 x 5 = 25]

13. What are the rules for Rounding off?
14. Obtain an expression for the time period T of a simple pendulum. The time period T depends on
 - (i) mass 'm' of the bob
 - (ii) length 'l' of the pendulum and
 - (iii) acceleration due to gravity g at the place where the pendulum is suspended. (Constant $k = 2\pi$) i.e
15. Show that the path of the projectile is a parabola in case of oblique projection.
16. Derive an expression for centripetal acceleration.
17. Explain the motion of blocks connected by a string in
 - i) Vertical motion
 - ii) Horizontal motion.
18. Drive the expression for acceleration and speed of an object kept in an inclined plane.

-----ALL THE BEST-----

Test should be written under the supervision of your parents and get the answer paper signed from them.

No corrections should be made after the test timings. We expect your honesty.

Test Papers have to be submitted after the completion of all the 4 tests.

Submission Date of Test Papers: 27th July, 28th July, 29th July

Timings: 9.30 AM – 1.00 PM / 5 PM- 8 PM