Padasalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- Padasalai's NEWS - Group
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- Padasalai's Channel - Group
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- Lesson Plan - Group
https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw

- 12th Standard - Group
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- 11th Standard - Group
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- 10th Standard - Group
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- 9th Standard - Group
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- 6th to 8th Standard - Group
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- TET - Group
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- PGTRB - Group
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X - science Total mark :- 25 m

1. unit Test

Time :- 60 min

I Choose the correct Answer. (3×1 = 3m)

(1) SI unit of Impulse is

a) Ns b) Ns^2 c) $kgms^{-2}$ d) kgm^2s^{-2}

(2) The acceleration in a body is due to ---

a) balanced force b) unbalanced force

c) Equilibriant d) couple.

(3) The ball is thrown up, the value of g will be

a) 0 b) +ve c) -ve d) Negligible

II Fill in the blanks : (2×1 = 2)

(4) 1 kg f equal to ----

(5) A boy of mass 50 kg Runs with a force of 100 N, his acceleration would be -----

III State whether the following statements are TRUE (OR) FALSE. correct the statement if it is false. (3×1 = 3)

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(6) value of 'g' is zero at the centre of the earth.

(7) Acceleration due to gravity can also be expressed as in $g = \frac{GM}{R^2}$

(8) In free fall under gravity, a body appears to be weightless

IV Match the following (4 × ½ = 2)

1. mxa – Impulsive force
2. mxv – acceleration due to gravity
3. fxt – force
4. W/m – momentum

V Assertion AND Reason. (2 × 1 = 2)

9. Assertion :- No force is Required to move a body uniformly along a straight line

Reason :-

Because $F = ma = m(0) = 0$

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10. Assertion :- A force of 1 kg force produces an acceleration of 1 m/s^2 in a body of mass 1kg.

Reason :- $a = F/m$.

VI Answer in ONE word:- 4×1 = 4

11. which law is used in geotropism ?

12. Action and Reaction forces do not balance each other why?

13. A lift is accelerated upward. what is apparent weight of a person inside the lift?

14. A force 1 N acts on a body of mass 1g, calculate the acceleration produced in the body

VII Answer in a word (or) sentence 2×2 = 4

15. State Newton's I Law

16. Define Torque. with unit ?

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VIII Give long Answer 5X1=5m.

17. state and prove F=ma

(or)

what are the concepts prepared by Galileo?

x x

All the best.

Prepared by.

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Answer key.

I Unit Test.

I

(1) a) Ns

(2) b) unbalanced force

(3) c) -ve

II

(4) 9.8 N

(5) $2\ ms^{-2}$ [$F = ma$

$a = \frac{F}{m} = \frac{100}{50} = \frac{10}{5} = \frac{2 \times 5}{5}$

$= 2\ ms^{-2}$]

III

(6) True

(7) True

(8) True.

IV

1 force

2 momentum

3 Impulsive force

4 acceleration due to gravity.

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V

9. Both assertion and reason are true and reason the correct explanation of assertion.

10. Assertion is false but Reason is true

VI

11. Newton's law of gravitation

12. This is because forces of action & reaction act always on the different bodies

13. The opposite weight will increase.

14. $F = ma \Rightarrow a = \frac{F}{m} = \frac{1}{10^{-3}}$

$$a = 10^3 \, ms^{-2}$$

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