

SIR CV RAMAN COACHING CENTRE IDAPPADI,SALEM ,

X SCIENCE UNIT – 1,SLIP TEST

DATE : 17.06.2024

TOTAL MARK : 25 M

CHOOSE THE CORRECT BEST ANSWER (5 X 1= 5M)

1. Newton's III law is applicable

- a) for a body is at rest b) for a body in motion
c) both a & b d) only for bodies with equal masses

2. Inertia of a body depends on

- a) weight of the object b) acceleration due to gravity of the planet
c) mass of the object d) Both a & b

3. In which of the following sport the turning of effect of force used

- a) swimming b) tennis c) cycling d) hockey

4. o project the rockets which of the following principle(s) is /(are) required?

- a) Newton's third law of motion b) Newton's law of gravitation
c) law of conservation of linear momentum d) both a and c

5. Plotting a graph for momentum on the Y-axis and time on X-axis. slope of momentum-time graph gives

- a) Impulsive force b) Acceleration c) Force d) Rate of force

ANSWER ANY FIVE QUESTIONS (5 X 2= 10 M)

6. Why a spanner with a long handle is preferred to tighten screws in heavy vehicles?

7. While catching a cricket ball the fielder lowers his hands backwards. Why?

8. How does an astronaut float in a space shuttle?

9. A mechanic unscrew a nut by applying a force of 140 N with a spanner of length 40 cm. What should be the length of the spanner if a force of 40 N is applied to unscrew the same nut?

10. If a 5 N and a 15 N forces are acting opposite to one another. Find the resultant force and the

direction of action of the resultant force

11. Differentiate mass and weight.
12. State the principle of moments.

ANSWER ANY TWO QUESTIONS (2 X 5= 10 M)

13. The ratio of masses of two planets is 2:3 and the ratio of their radii is 4:7 Find the ratio of their accelerations due to gravity.
14. Describe rocket propulsion.
15. State the universal law of gravitation and derive its mathematical expression
16. State Newton's laws of motion?

PREPARED BY

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