

10.S.1.Laws of Motion

Choose the correct answer

1. 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

2. Impulse is equals to

- a) rate of change of momentum b) rate of force and time
- c) change of momentum d) rate of change of mass

3. 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

4. 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

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

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

6. The unit of 'g' is m s^{-2} . It can be also expressed as

- a) cms^{-1} b) Nkg^{-1} c) $\text{Nm}^2\text{kg}^{-1}$ d) cm^2s^{-2}

7. One kilogram force equals to

- a) 9.8 dyne b) $9.8 \times 10^4 \text{ N}$ c) $98 \times 10^4 \text{ dyne}$ d) 980 dyne

8. The mass of a body is measured on planet Earth as M kg. When it is taken to a planet of radius half that of the Earth then its value will be ____ kg

- a) 4 M b) 2M c) M/4 d) M

9. If the Earth shrinks to 50% of its real radius its mass remaining the same, the weight of a body on the Earth will

- a) decrease by 50% b) increase by 50%
- c) decrease by 25% d) increase by 300%

10. To 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

C. K. Teacher
GGHSS-Manalmedu