

Duration: 30 Mins

Total Marks: 10

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1. Which state of equilibrium's example is A cone resting on its tip?

- A) Unstable B) Stable
C) Horizontal D) Neutral

Answer: A) Unstable

2. Which one of the following geometrical shapes centre of gravity lies from its base is $\frac{1}{3}$ of its height?

- A) Triangle B) Cone
C) Square D) Rhombus

Answer: A) Triangle

3. What is the centre of gravity of a sphere?

- A) On the circumference B) At the diameter
C) At the centre D) At the radius

Answer: C) At the centre

4. Where the centre of gravity of a circle lies?

- A) At its centre B) Any where on its radius
C) Any where on its circumference D) Any where on its diameter

Answer: A) At its centre

5. Which affects the centre of gravity of the object?

- A) Density B) Shape
C) Weight D) Mass

Answer: D) Mass

6. Which state of equilibrium's example is, A cone resting on its base?

- A) Both A and B B) Stable
C) Un-stable D) Neutral

Answer: B) Stable

7. What is the centre of gravity of a rectangular body?

- A) Longer side of rectangle B) At the point of intersection of its diagonals
C) Shorter side of rectangle D) At the corners

Answer: B) At the point of intersection of its diagonals

8. What is the name of the point at which all the weight of the body concentrated?

- A) Central point B) Centre of gravity
C) Initial point D) Centroid

Answer: B) Centre of gravity

9. What is the centre of gravity of a solid hemisphere from its base?

- A) $\frac{3r}{8}$ B) $\frac{r}{2}$
C) $\frac{4r}{5}$ D) $\frac{3r}{4}$

Answer: A) $\frac{3r}{8}$

10. What is the centre of gravity of a right circular cone from its base?

- A) $\frac{h}{2}$ B) $\frac{h}{3}$
C) $\frac{h}{5}$ D) $\frac{h}{4}$

Answer: D) $\frac{h}{4}$