

Duration: 30 Mins

Total Marks: 10

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1. What is the centre of gravity of a semi circle of diameter 12 cm?

- A) 2.24 cm B) 2.75 cm
C) 3.25 cm D) 2.54 cm

Answer: D) 2.54 cm

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

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

Answer: C) Unstable

3. 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

4. Which affects the centre of gravity of the object

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

Answer: B) Mass

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

- A) $r/2$ B) $3r/8$
C) $4r/5$ D) $3r/4$

Answer: B) $3r/8$

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

- A) $h/2$ B) $h/5$
C) $h/4$ D) $h/3$

Answer: C) $h/4$

7. Which one of the following geometrical shape's centre of gravity lies from its base is $1/3$ of its height?

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

Answer: B) Triangle

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

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

Answer: C) Stable

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

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

Answer: B) Centre of gravity

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

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

Answer: B) At its centre