

Duration: 60 Mins

Total Marks: 11

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

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

Answer: C) Mass

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

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

Answer: D) Stable

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

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

Answer: D) At its centre

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

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

Answer: A) Centre of gravity

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

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

Answer: C) Triangle

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

- A) Neutral B) Horizontal

- C) Stable D) Unstable

Answer: D) Unstable

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

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

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

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

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

Answer: B) 2.54 cm

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

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

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

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

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

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

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

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

Answer: A) At the centre