

9. Centre of Gravity

Q. ID: ITISKILL5529GX

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Answer Key

Duration: 30 Mins

Total Marks: 11

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

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

Answer: C) Centre of gravity

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) Rhombus
- C) Square
- D) Cone

Answer: A) Triangle

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

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

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

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

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

Answer: B) At the centre

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

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

Answer: D) 2.54 cm

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

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

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

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

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

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

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

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

Answer: A) Stable

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

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

Answer: B) Unstable

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

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

Answer: A) At its centre

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

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

Answer: D) Mass