

9. Centre of Gravity

Q. ID: ITISKILL5529GX

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Govt ITI Beerihundi

Question Paper

Duration: 30 Mins

Total Marks: 11

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Student Name: _____

Roll No: _____

1. 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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