

Student: Manoj

Score: 24/25 (96.00%)

Code: 7811

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

- A) Weight
 B) **Mass (Correct)**
 C) Density
 D) Shape

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

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

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

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

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

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

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

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

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

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

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

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

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

- A) Stable
 B) Neutral
 C) **Unstable (Correct)**
 D) Horizontal

9. Which one of the following geometrical shapes centre of gravity lies from its base is $1/3$ of its height?

- A) Square
 B) Rhombus
 C) **Triangle (Correct)**
 D) Cone

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

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

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

- A) 2.24 cm
 B) **2.54 cm (Correct)**
 C) 3.25 cm
 D) 2.75 cm

12. Which is thermo plastic material?

- A) Butyl rubber
 B) Nylon (Incorrect)
 C) Neoprene
 D) **Vinyl polymers**

13. What is the ratio between the change in dimension to its original dimension of the substance?

- A) Stress
 B) **Strain (Correct)**
 C) Poisson's ratio
 D) Factor of safety

14. What is the ratio of shear stress to shear strain?

- A) Modulus of elasticity
 B) **Modulus of rigidity (Correct)**
 C) Bulk modulus
 D) Yield point

15. What is the ratio between stress and strain?

- A) Yield point
 B) Factor of safety
 C) **Youngs Modulus (Correct)**
 D) Poisson's ratio

16. Which force acts on crank shaft?

- A) Shear stress
 B) **Torsional stress (Correct)**
 C) Tensile stress
 D) Compressive stress

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- A) Longer side of rectangle B) Shorter side of rectangle
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21. What is the centre of gravity of a solid hemisphere from its base?

- A) $4r/5$ B) **$3r/8$ (Correct)**
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22. What is the centre of gravity of a sphere?

- A) **At the centre (Correct)** B) On the circumference
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23. Which state of equilibrium's example is A cone resting on its tip?

- A) Stable B) Neutral
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24. Which state of equilibrium's example is, A cone resting on its base?

- A) Un-stable B) Neutral
C) **Stable (Correct)** D) Both A and B
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25. What is the centre of gravity of a semi circle of diameter 12 cm?

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