

ITI Quizwc5 - 04-
Apr-2026 11:12 AM
Trinity, College udhyavara udupi

Q. ID: ITISKILL4325NC

April 2026

Answer Key

Duration: 155 Mins

Total Marks: 25

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

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

Answer: C) Stable

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

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

Answer: A) Mass

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

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

Answer: A) At its centre

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

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

Answer: C) Stable

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

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

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

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

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

Answer: C) $h/4$

7. What is the ratio between stress and strain?

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

Answer: C) Youngs Modulus

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

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

Answer: D) $3r/8$

9. Which force acts on crank shaft?

- A) Tensile stress B) Torsional stress
C) Shear stress D) Compressive stress

Answer: B) Torsional stress

10. Which is thermo plastic material?

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

Answer: C) Vinyl polymers

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

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

Answer: D) $h/4$

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

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

Answer: B) Triangle

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

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

Answer: C) Centre of gravity

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

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

Answer: C) Modulus of rigidity

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

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

Answer: C) Unstable

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

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

Answer: C) Unstable

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

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

Answer: A) 2.54 cm

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

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

Answer: D) 2.54 cm

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

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

Answer: A) Centre of gravity

20. 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

21. 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

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

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

Answer: A) At the centre

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

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

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

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

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

Answer: C) Strain

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

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

Answer: A) $3r/8$