

MONTHLY TEST

Q. ID: ITISKILL02875G

January 2026

GOVT. ITI.AMMASANDRA,

Question Paper

Duration: 60 Mins

Total Marks: 25

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Student Name: _____ Roll No: _____

1. Which affects the centre of gravity of the object

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

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

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

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

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

4. 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

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

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

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

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

7. What is the ratio of change in length to original length?

- A) Lateral strain B) Volumetric strain
C) Linear strain D) Poisson's ratio

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

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

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

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

10. What is the maximum percentage of stretch of its original length is allowable for elastic materials?

- A) 200% B) 300%
C) 100% D) 400%

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

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

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

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

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

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

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

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

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

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

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

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

17. Which one of the following geometrical shape's centre of gravity lies from its base is $1/3$ of its height?

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

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

- A) Both A and B B) Un-stable

C) Neutral

D) Stable

19. 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

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

A) Both A and B

B) Un-stable

C) Stable

D) Neutral

21. Which is thermo plastic material?

A) Nylon

B) Vinyl polymers

C) Butyl rubber

D) Neoprene

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

A) At the diameter

B) At the radius

C) At the centre

D) On the circumference

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

A) 2.75 cm

B) 2.54 cm

C) 2.24 cm

D) 3.25 cm

24. 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

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

A) At the corners

B) Shorter side of rectangle

C) Longer side of rectangle

D) At the point of intersection of its diagonals