

ITI Quiz W/C- 04- Apr-2026 1 PM

Q. ID: ITISKILL0142CC

April 2026

Trinity, College udhyavara udupi

Question Paper

Duration: 155 Mins

Total Marks: 50

ID: ITISKILL0142CC

Student Name: _____ Roll No: _____

1. What is a under estimate?

- A) No work started as per estimate
B) An estimate is exceeded the actual estimate
C) An estimate is fell short of the actual estimate
D) An estimate perfectly matches with actual

tested for a tensile load of 1000 kg?

- A) 1000 kg/mm²
B) 100 kg/mm²
C) 1 kg/mm²
D) 10 kg/mm²

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

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

10. What is the term used for maximum stress attained by a material before rupture?

- A) Compressive stress
B) Ultimate stress
C) Working stress
D) Tensile stress

3. 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

11. What is the ratio between lateral strain and longitudinal strain?

- A) Poisson's ratio
B) Bulk modulus
C) Hooks law
D) Young's modulus

4. What is the ratio between stress and strain?

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

12. What is the youngs modulus if a wire of 2m long, 0.8 mm² in cross section increases its length by 1.6 mm on suspension of 8 kg weight from it?

- A) 12500 kg/mm²
B) 12.5 kg/mm²
C) 1.25 kg/mm²
D) 125 kg/mm²

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

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

13. Which law states that within elastic limit stress is directly proportional to strain?

- A) Newtons law
B) Joules law
C) Charles law
D) Hooks law

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

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

7. What is the formula for bulk modulus?

- A) Volumetric stress/Volumetric strain
B) Compressive stress/Compressive strain
C) Tensile stress/Tensile strain
D) Shear stress/Shear strain

14. What is the total cost of Air-conditioners installed in a college, 40 class room-each 1 Air-conditioner, Computer lab 5 Air- conditioners and conference hall 5 Air-conditioners (Cost of one air conditioner Rs.30000/- including installation)?

- A) Rs. 12 lakhs
B) Rs.10 lakhs
C) Rs. 15 lakhs
D) Rs. 20 lakhs

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

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

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

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

9. What is the tensile stress if a square rod of 10 mm side is

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

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

17. How much strain is developed in an iron rod of 1 metre length gets elongated by 1 cm, if a force of 100 kg is applied at one end?

- A) 0.01 B) 0.1
C) 0.001 D) 0.0001

18. What is the tensile strain if a force of 3.2 KN is applied to a bar of original length 2800 mm extends the bar by 0.5 mm?

- A) 0.0001968 B) 0.0001786
C) 0.0001687 D) 0.0001867

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

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

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

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

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

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

22. Which affects the centre of gravity of the object

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

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

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

24. What is the ratio between ultimate stress to working stress?

- A) Young's modulus B) Bulk modulus
C) Modulus of rigidity D) Factor of safety

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

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

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

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

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

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

28. What force will be required to punch a hole of 10 mm dia in a 1 mm thick plate, if the allowable shear stress is 50N/mm^2 ? ($\pi = 22/7$)

- A) 1757 N B) 1571.4 N
C) 1575 N D) 1577 N

29. Which is elastic material?

- A) Polycarbonates B) Nylon
C) Polystyrenes D) Celluloid

30. What is the weight of a rectangular block of a cast iron of $250\text{cm} \times 20\text{cm} \times 8\text{cm}$ (density of cast iron is 7.8 gm/cm^3)?

- A) 410 kg B) 372 kg
C) 525 kg D) 312 kg

31. What is the ratio of ultimate load to area of original cross section?

- A) Yield point B) Ultimate stress
C) Young's modulus D) Factor of safety

32. Which one is the ratio of stress?

- A) Load and diameter B) Load and area
C) Load and time D) Load and direction

33. Which force acts on rivets?

- A) Compressive force B) Bending force
C) Shear force D) Tensile force

34. Which force acts on crank shaft?

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

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

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

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

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

37. 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

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

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

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

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

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

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

41. What is the unit of strain?

- A) Kg/cm^2
- B) Newton/metre^2
- C) Metre
- D) No unit

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

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

43. Which is thermo plastic material?

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

44. Which symbol is used to express change in length?

- A) Δ
- B) δl
- C) e
- D) L

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

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

46. What is the safe stress if the ultimate stress of a material is 35 kg/mm^2 and factor of safety is 5?

- A) 0.7
- B) 1.43
- C) 0.143
- D) 7

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

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

48. Which one is included in machining estimation sheet?

- A) Transport cost
- B) Tax
- C) Advertisement cost
- D) Raw material cost

49. What is the minimum permissible area of conductor (U/G cable) for three and half cores cable?

- A) 5 sq.mm
- B) 100 sq.mm
- C) 50 sq.mm
- D) 25 sq.mm

50. Which is thermosetting plastic?

- A) Celluloid
- B) Polystyrenes
- C) Vinyl polymers
- D) Melamine resins