ITI Quiz W/C- 04-Apr-2026 9:30AM

Q. ID: ITISKILL2173N7

April 2026 | **Trinity, College udhyavara udupi** | Answer Key

Duration: 155 Mins | **Total Marks: 50** | **Q.ID: ITISKILL2173N7**

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

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

Answer: B) 3r/8

2. What is the tensile stress if a square rod of 10 mm side is tested for a tensile load of 1000 kg?

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

Answer: C) 10 kg /mm²

3. What is the safe stress if the ultimate stress of a material is 35 kg/mm² and factor of safety is 5?

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

Answer: D) 7

4. What is the formula for bulk modulus?

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

Answer: C) Volumetric stress/Volumetric strain

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

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

Answer: C) Ultimate stress

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

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

Answer: A) Linear strain

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

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

Answer: B) Poisson's ratio

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

Answer: D) Centre of gravity

9. Which affects the centre of gravity of the object

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

Answer: C) Mass

10. Which force acts on rivets?

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

Answer: D) Shear force

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

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

Answer: A) Stable

12. Which is thermo plastic material?

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

Answer: D) Vinyl polymers

13. 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/mm²? (Pi = 22/7)

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

Answer: C) 1571.4 N

14. Which is thermosetting plastic?

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

Answer: D) Melamine resins

15. Which is elastic material?

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

Answer: A) Nylon

16. 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) 0.0001 B) 0.1
C) 0.01 D) 0.001

Answer: C) 0.01

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

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

Answer: C) 3r/8

18. What is the ratio between stress and strain?

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

Answer: B) Youngs Modulus

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

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

Answer: A) Triangle

20. What is the main factor to be considered while preparing a detailed estimate?

A) Brand of the materials B) Location of material
C) Shape of material D) Quantity, availability and transportation of materials

Answer: D) Quantity, availability and transportation of materials

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

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

Answer: B) Strain

22. What is a under estimate?

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

Answer: C) An estimate is fell short of the actual estimate

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

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

Answer: C) At its centre

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

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

Answer: C) Unstable

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

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

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

26. What is the total labour charges for a particular wiring work completed in 2 days by one electrician and one helper.(Electrician @ ?800/day and helper @ Rs 400/day)

A) Rs. 1400 B) Rs. 2400
C) Rs. 3000 D) Rs. 2000

Answer: B) Rs. 2400

27. What is the unit of strain?

A) Metre B) Newton/metre²
C) No unit D) Kg/cm²

Answer: C) No unit

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

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

Answer: D) 300%

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

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

Answer: C) At the centre

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

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

Answer: A) At the centre

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

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

Answer: C) Stable

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

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

Answer: B) Modulus of rigidity

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

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

Answer: A) At its centre

34. 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

35. Which force acts on crank shaft?

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

Answer: B) Torsional stress

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

A) Factor of safety
B) Youngs modulus
C) Ultimate stress
D) Yield point

Answer: C) Ultimate stress

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

A) delta l
B) l
C) e
D) L

Answer: A) delta l

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

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

Answer: C) h/4

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

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

Answer: A) Hooks law

40. Which authority publishes schedule of rates?

A) Individual
B) Corporate
C) Government department
D) Partnership firm

Answer: C) Government department

41. Which one is the ratio of stress?

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

Answer: B) Load and area

42. Which IE rules are to be verified on completion of wiring on any new installation?

A) IE Rules, 1967
B) IE Rules, 1961
C) IE Rules, 1956
D) IE Rules, 1960

Answer: C) IE Rules, 1956

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

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

Answer: B) h/4

44. 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) Cone
D) Rhombus

Answer: B) Triangle

45. 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) 125 kg/mm²
B) 12.5 kg /mm²
C) 12500 kg/mm²
D) 1.25 kg/mm²

Answer: C) 12500 kg/mm²

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

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

Answer: C) Mass

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

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

Answer: D) Unstable

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

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

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

49. 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) 0.0001786
B) 0.0001687
C) 0.0001867
D) 0.0001968

Answer: A) 0.0001786

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

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

Answer: A) Factor of safety