ITI Quiz - 26-Feb-2026 01:56 PM

Q. ID: ITISKILL5502JT

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February 2026 | Question Paper

Duration: 60 Mins | **Total Marks: 25** | **ID: ITISKILL5502JT**

Student Name: _____ Roll No: _____

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

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

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

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

3. Which force acts on rivets?

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

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

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

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

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

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

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

7. What is the formula for bulk modulus?

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

8. Which is thermosetting plastic?

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

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

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

10. 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) 0.001
C) 0.1 | D) 0.01

11. What is the unit of strain?

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

12. Which force acts on crank shaft?

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

13. Which is elastic material?

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

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

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

15. 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) 0.0001687 | B) 0.0001867
C) 0.0001968 | D) 0.0001786

16. Which one is the ratio of stress?

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

17. Which is thermo plastic material?

A) Nylon | B) Vinyl polymers

C) Butyl rubber D) Neoprene

18. What is the ratio between stress and strain?

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

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

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

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

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

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

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

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

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

23. 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) 1.25 kg/mm² B) 12500 kg/mm²
C) 125 kg/mm² D) 12.5 kg /mm²

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

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

25. 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