

WORK SHEET
UNIT-I

1. Which of the following is a primary factor in the selection of engineering materials?
 - A) Color
 - B) Cost
 - C) Shape
 - D) SizeAnswer: B) Cost
2. The property of a material that resists deformation is called:
 - A) Strength
 - B) Toughness
 - C) Stiffness
 - D) DuctilityAnswer: C) Stiffness
3. Which stress is developed when a material is subjected to twisting?
 - A) Tensile stress
 - B) Compressive stress
 - C) Shear stress
 - D) Bending stressAnswer: C) Shear stress
4. The ratio of stress to strain within elastic limit is:
 - A) Modulus of elasticity
 - B) Factor of safety
 - C) Poisson's ratio
 - D) Rigidity indexAnswer: A) Modulus of elasticity
5. In combined stresses, failure occurs due to:
 - A) Single load
 - B) Multiple loads
 - C) No load
 - D) Static load onlyAnswer: B) Multiple loads
6. Which theory is used for ductile materials?
 - A) Rankine theory
 - B) Maximum shear stress theory
 - C) Coulomb theory
 - D) Euler theoryAnswer: B) Maximum shear stress theory
7. Factor of safety is defined as:
 - A) Working stress / Ultimate stress
 - B) Ultimate stress / Working stress
 - C) Yield stress / Strain
 - D) Stress / LoadAnswer: B) Ultimate stress / Working stress

WORK SHEET

8. Impact stress is caused by:
A) Static load
B) Gradual load
C) Sudden load
D) Thermal load
Answer: C) Sudden load
9. The BIS code refers to:
A) British Standards Institute
B) Bureau of Indian Standards
C) Basic Industrial System
D) Building Inspection Service
Answer: B) Bureau of Indian Standards
10. Tolerance is defined as:
A) Maximum size
B) Minimum size
C) Difference between upper and lower limits
D) Nominal size
Answer: C) Difference between upper and lower limits
11. Which type of fit results in always clearance?
A) Interference fit
B) Transition fit
C) Clearance fit
D) Force fit
Answer: C) Clearance fit
12. Preferred numbers are used to:
A) Increase stress
B) Reduce manufacturing variety
C) Increase weight
D) Increase cost
Answer: B) Reduce manufacturing variety
13. Bending stress is developed due to:
A) Axial load
B) Twisting load
C) Bending moment
D) Shear force only
Answer: C) Bending moment
14. The stiffness in torsion depends on:
A) Young's modulus
B) Bulk modulus
C) Modulus of rigidity
D) Density
Answer: C) Modulus of rigidity
15. Which property indicates energy absorption before fracture?
A) Brittleness
B) Hardness

WORK SHEET

C) Toughness

D) Elasticity

Answer: C) Toughness

FILL IN THE BLANKS

1. The process of selecting suitable materials depends on mechanical and _____ properties.
Answer: physical
2. The ratio of lateral strain to longitudinal strain is called _____.
Answer: Poisson's ratio
3. _____ stress is developed when a body is subjected to axial pull.
Answer: Tensile
4. The maximum stress a material can withstand is called _____ stress.
Answer: Ultimate
5. _____ fit results when the shaft is always larger than the hole.
Answer: Interference
6. BIS stands for Bureau of _____ Standards.
Answer: Indian
7. The ability of a material to resist deformation is called _____.
Answer: stiffness
8. _____ stresses occur due to sudden application of loads.
Answer: Impact
9. The design based on limiting deformation is called design for _____.
Answer: rigidity
10. Preferred numbers are based on _____ series.
Answer: geometric



NRCM

your roots to success...