

QUIZ NO: 788

TOPIC: MECHANICS OF SOLIDS

DATE: 28/12/2023

1. In the case of equivalent torque when compared with combined action of torsion and bending, which is considered as same

- [A] Shear stress
- [B] Max shear stress
- [C] Bending stress
- [D] Max bending stress

Answer: B

2. Strain energy is

- [A] Area of resistance deformation curve
- [B] Area of load deformation curve
- [C] Area of stress- strain curve
- [D] Area of shear force diagram

Answer: A

3. Area of shear force diagram is:

- [A] Strain energy
- [B] Work done
- [C] Modulus of toughness
- [D] Bending moment

Answer: D

4. Mathematically, strain energy = _____

- [A] Power
- [B] Work done
- [C] Young's Modulus
- [D] Energy

Answer: B

5. The strain energy of a body due to suddenly applied when compared to gradually applied load is

- [A] Same
- [B] 2 times
- [C] 4 times
- [D] Half

Answer: C

6. The Total strain energy stored in a body is called as...

- [A] Proof resilience
- [B] Modulus of resilience
- [C] Resilience
- [D] Impact energy

Answer: C

7. The unit of modulus of resilience is....

- [A] N/mm^3
- [B] N/mm^2
- [C] N/mm
- [D] N/m

Answer: B

8. Resilience of material is important when it is subjected to

- [A] Thermal stress
- [B] Shocking load
- [C] Wear and tear
- [D] Fatigue

Answer: B

9. Torsional rigidity is:

- [A] $G\theta$
- [B] EI
- [C] GJ
- [D] None of these

Answer: C

10. The intensity of shear stress at a section is _____ to the distance of the section from the axis of the shaft

- [A] Inversely proportional
- [B] Directly proportional
- [C] Equal
- [D] Parallel

Answer: B

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