QUIZ NO: 451

TOPIC: MECHANICS OF SOLIDS

DATE: 05/06/2021

1. **A column is a**

   [A] Horizontal tie

   [B] Vertical Strut

   [C] Vertical tie

   [D] Horizontal strut

   Answer: B

2. **The equivalent length of a column, with one end fixed, and the other end free is**

   [A] L

   [B] l/2

   [C] l/√2

   [D] 2l

   Answer: D

3. **Due to the torque, in a shaft, every cross –section of its, subjected to**

   [A] Tensile stress

   [B] Compressive stress

   [C] Shear Stress

   [D] None of these

   Answer: C

4. **The limit of eccentricity, of a circular section, of diameter 'd' is**

   [A] d/8

   [B] d/4

   [C] d/3

   [D] d/6

   Answer: A

5. **The maximum bending moment at the fixed end of a cantilever beam, with a uniformly distributed load, for the entire span is**

   [A] wl

   [B] wl/2

   [C] $wl^2/2$

   [D] $wl^2/8$

   Answer: C

6. **In a simply supported beam, the point ,where the maximum bending moment occurs, is**

[A] The support point

[B] Mid-point

[C] At the point, where S. F is zero

[D] None of the above

Answer: C

7. **As per Hooke's law stress is directly proportional to strain within**

[A] Yield point

[B] Elastic limit

[C] Limit of proportionality

[D] Plastic limit

Answer: C

8. **The shearing stresses of a beam, at the neutral axis will be**

[A] Minimum

[B] Maximum

[C] Average

[D] None of these above

Answer: B

9. For a cantilever with a UDL, for the entire span, the maximum deflection, at the free end is

[A] $W/^2/2EL$

[B] $w/^3/3EL$

[C] $w/^3/6EL$

[D] $w/^4/8EL$

Answer: D

10. A fixed beam is also termed as

[A] Overhanging beam

[B] Propped beam

[C] Constrained beam

[D] Continues beam

Answer: C

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