

1. When a shaft is subjected to torsion, the relation between maximum shear stress, modulus of rigidity of the shaft(C) and angle of twist is given by _____
2. A solid shaft of diameter D transmits the torque equal to _____
3. Torsional rigidity of a shaft to
 - (a) product of modulus of rigidity and polar moment of inertia
 - (b) sum of modulus of rigidity and polar moment of inertia
 - (c) the difference of modulus of rigidity and polar moment of inertia
 - (d) ratio of modulus of rigidity polar moment of inertia
4. Two shafts one solid and other hollow are made of the same material and are having same length weight. The hollow shaft as compared to solid shaft is
 - (a)more strong (b) more strong (c)having same strength (d)none
5. The basic torsional equation is given by_____
- 6.The assumption made while determining the shear stress in a circular shaft subjected to torsion is that
 - (a)the material of the shaft is uniform (b)the twist along the shaft is uniform (c)all the above (d)none of the above
7. When the shaft of the diameter (d) is subjected to combined twisting moment (T) and bending moment (M),the max. shear stress τ is equal to _____
8. Strut is defined as _____
9. Column is defined as _____

- 10.The maximum axial compressive load which a column can take without failure by lateral deflection is called
 - (a)critical load (b)buckling load (c)crippling load (d)all
11. Slenderness ratio is defined as the ratio of -----
12. Buckling factor is defined as the ratio of _____
13. The crippling load according to Euler's theory of long columns when both ends of the columns are hinged is equal to_____
14. The equivalent length is equal to actual length of a column for the _____end conditions.
15. The crippling load according to Euler theory of long columns when one end fixed and other end is free is equal to_____
16. The equivalent length is equal _____to actual length of a column for one end fixed and other end hinged.
17. The crippling load according to Euler's theory of long columns when one end fixed and other end is hinged is equal to_____
18. The equivalent length is equal to twice the actual length of a column for the_____end conditions.
- 19.Rankine's formula is the empirical formula used for the
 - (a)short columns (b)long columns (c)both columns (d)none
20. The crippling load given by the Rankine's formula is _____