Quizlet NAME _____

17 Multiple choice questions

1. the ability of a material to withstand permanent deformation without failure
    a. timber
    b. tension
    c. plasticity
    d. strain

2. a naturally occurring composite material made up of cellulose and lignin
    a. timber
    b. tension
    c. truss
    d. shear

3. the first point (load) at which a specimen yields and where an increase in strain occurs without an increase in strength
    a. vitreous
    b. yield stress
    c. yield point
    d. tension

4. a calculation based on cross-sectional areas used to predict the resistance of a beam to bending and deflection
    a. superstructure
    b. yield point
    c. second moment of area
    d. tension

5. the amount of deformation an object experiences compared to its original length
    a. stress
    b. strain
    c. shear
    d. truss

6. a value calculated to substitute for yield strength when no obvious yield point exists for a material
    a. proof stress
    b. stress
    c. yield stress
    d. truss

7. items related to bridges including the roadway, footpaths, railings and supporting structural members
    a. superstructure
    b. plasticity
    c. shear
    d. proof stress

8. a measure of rigidity; may also refer to a resistance to flexing
    a. stress
    b. timber
    c. truss
    d. stiffness

9. a supportive structure consisting of beams or girders with members arranged in a triangulated configuration
    a. truss
    b. timber
    c. strain
    d. stress

10. a term which describes a material that is glass-like in structure
    a. truss
    b. timber
    c. stress
    d. vitreous

11. the ratio of stress to strain within the elastic region of the stress-strain curve (prior to the yield point)
    a. truss
    b. vitreous
    c. Young's modulus
    d. yield point

12. a material consisting of a soft, ductile matrix of iron with large inclusions of slag, elongated by the forming process
    a. wrought iron
    b. truss
    c. proof stress
    d. tension

13. the relationship between force and the cross-sectional area of a material
    a. shear
    b. stress
    c. truss
    d. strain

14. the maximum stress a material can withstand before failing
    a. yield point
    b. tension
    c. yield stress
    d. ultimate tensile strength

15. forces applied to a body that attempt to stretch or make the body longer
    a. strain
    b. stress
    c. tension
    d. truss

16. movement of a material in which parallel internal surfaces slide past one another
    a. strain
    b. truss
    c. shear
    d. stress

17. the maximum engineering stress, in Mpa, at which permanent, non-elastic deformation begins
    a. stress
    b. yield stress
    c. proof stress
    d. yield point