

Engineering Studies 1 Civil Structures - Part 1 Study online at quizlet.com/_1wt403

1. amorphous	a solid which is not crystalline, characterised by certain areas of short-range order
2. asphalt	a composite material consisting of aggregates suspended in a matrix of bitumous material interspersed with air voids
3. basic oxygen steelmaking	a technique used for making steel from molten pig iron and scrap
4. cantilever	beams anchored at only one end, allowing for overhanging structures without external bracing
5. cast iron	a non-malleable, iron-carbon that is brittle and relatively weak in tension
6. cement	an ingredient of concrete made from calcined mixtures of clay-like and lime-bearing materials
7. ceramic	a multi-phase material containing phases composed of compounds of metals and non- metals; typically hard and providing good insulation
8. composites	a multiphase material formed from a combination of materials; remaining bonded, individual components combine to improve upon the original properties of the component materials
9. compression	forces applied to an object that try to squash or reduce the object in size
10. concrete	a combination of cement, fine aggregate (sand), coarse aggregate (blue metal) and water
11. corrosion	a chemical reaction that results in the conversion of metallic materials into oxides, salts or other compounds
12. elastic	material that deforms under stress but returns to its original size and shape when the stress is released, leaving no permanent deformation
13. factor of safety	an idea that guides engineers to design structures within safe limits
14. geotextile	natural and synthetic materials used to create a barrier between differing layers of earthworks
15. glass	ceramic produced through the fusion of inorganic materials cooled to a hard condition without any crystalline structure developing
16. Hooke's law	a principle stating that stress is directly proportional to strain within a material's proportional limit

17. life cycle analysis	a tool to support decision making for designers, engineers and manufacturers when assessing the impact of a product or process on the environment
18. method ofjoints	a technique used for resolving forces in trusses by isolating individual joints
19. method of sections	an approach to truss analysis isolation a section of the truss to be dealt with separately