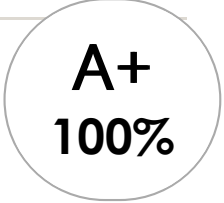


24 Multiple choice questions



A+
100%

1. a non-magnetic solid solution of carbon in iron
 - a. ferrite
 - b. **CORRECT: austenite**
 - c. eutectoid
 - d. cementite

2. a hard, brittle iron carbide compound with the formula Fe₃C, found in carbon steel
 - a. austenite
 - b. inertia
 - c. ferrite
 - d. **CORRECT: cementite**

3. the resistance to the relative motion (sliding or moving) between surfaces in contact
 - a. inertia
 - b. **CORRECT: friction**
 - c. inductor
 - d. fibre

4. an area of a vehicle that is designed to compress during an accident to absorb the energy from the impact
 - a. duralumin
 - b. **CORRECT: crumple zone**
 - c. cementite
 - d. impedance

5. a slender thread of a natural or synthetic material, such as optical or carbon fibres
 - a. ferrous
 - b. **CORRECT: fibre**
 - c. ferrite
 - d. diode

6. direct current
 - a. **CORRECT: DC**
 - b. fibre
 - c. AC
 - d. diode

7. the tendency of a body to persist in its state of rest or uniform (unaccelerated) motion in a straight line unless acted upon by a net (unbalanced) external force
 - a. ferrous
 - b. **CORRECT: inertia**
 - c. inductor
 - d. ferrite

8. iron based
 - a. alloy
 - b. **CORRECT: ferrous**
 - c. ferrite
 - d. fibre

9. a series of tests undertaken while machinery is operating to assess conformance within specified operating criteria
 - a. cementite
 - b. **CORRECT: condition monitoring**
 - c. conductor
 - d. capacitor

10. the dimensionless ratio of the friction resistive force and the normal force pressing two bodies together
 - a. friction
 - b. condition monitoring
 - c. **CORRECT: coefficient of friction**
 - d. cementite

11. a piece of equipment providing inductance (electromagnetic induction) in a circuit or other system
 - a. capacitor
 - b. inertia
 - c. conductor
 - d. **CORRECT: inductor**

12. a device consisting of two conducting surfaces separated by an insulator for accumulating and holding an electric charge when voltage is applied
 - a. alloy
 - b. conductor
 - c. **CORRECT: capacitor**
 - d. inductor

13. a mixture of two or more elements, at least one of which is a metal usually formed by melting
 - a. fibre
 - b. AC
 - c. **CORRECT: alloy**
 - d. anneal

14. the trade name of an aluminium alloy containing varying degrees of copper, manganese and magnesium
 - a. friction
 - b. **CORRECT: duralumin**
 - c. ferrous
 - d. alloy

15. glass produced by slow cooling to remove internal stress; it can be cut to size
 - a. alloy
 - b. **CORRECT: annealed glass**
 - c. crumple zone
 - d. anneal

16. the lowest point on an equilibrium phase diagram at which complete transformation from one solid phase to another occurs
- conductor
 - inertia
 - inductor
 - CORRECT: eutectoid**
17. a semiconductor device that can act as a conductor if current is moving in one direction or as an insulator when moving in the reverse direction
- fibre
 - AC
 - CORRECT: diode**
 - DC
18. a measure in an AC circuit that is equivalent to resistance in a DC circuit
- AC
 - diode
 - CORRECT: impedance**
 - inertia
19. a substance, body or device capable of transmitting electricity, heat or sound
- inductor
 - CORRECT: conductor**
 - capacitor
 - inertia
20. to heat to a critical temperature and slowly furnace cool to remove internal stress
- fibre
 - CORRECT: anneal**
 - AC
 - alloy

21. body centred cubic (BCC) phase in the iron-carbon phase diagram which may exist in either a low temperature or high temperature form
- cementite
 - fibre
 - CORRECT: ferrite**
 - ferrous
22. a term applying to any of several processes involving heating metals to controlled temperatures for specific periods of time before cooling them at controlled rates
- ferrite
 - cementite
 - CORRECT: heat treatment**
 - eutectoid
23. a vehicle manufactured in such a way that it is capable of withstanding the effects of a crash
- cementite
 - CORRECT: crashworthiness**
 - crumple zone
 - ferrite
24. alternating current
- DC
 - anneal
 - alloy
 - CORRECT: AC**