

20 Multiple choice questions

1. materials that do not promote or retard biological interaction
 - a. nitinol
 - b. bioinert
 - c. bioactive
 - d. lever

2. code based on two states such as 'on' or 'off', 'up' or 'down', 'true' or 'false'; if these two states are represented numerically the two options are the digits '0' or '1'
 - a. ceramic
 - b. biomedical
 - c. binary code
 - d. bioactive

3. a multi-phase material containing phases composed of metals and non-metals, ceramics are typically hard and brittle with good insulating properties
 - a. aseptic
 - b. ceramic
 - c. lever
 - d. corrosion

4. against germs
 - a. antiseptic
 - b. bioinert
 - c. aseptic
 - d. bioactive

5. to treat or coat a metal in order to reduce the chemical activity of its surface
 - a. glass
 - b. aseptic
 - c. passivate
 - d. logic gate

6. materials usually characterised by certain areas of short-range order; as in crystals, does not exist in amorphous substances
 - a. amorphous
 - b. nitinol
 - c. glass
 - d. aseptic

7. a simple machine that can be used to magnify effort or motion
 - a. lever
 - b. glass
 - c. bioinert
 - d. aseptic

8. point about which a lever arm moves
 - a. lever
 - b. fulcrum
 - c. glass
 - d. aseptic

9. items that act as digital switches in which an output of '0' or '1' is produced; depending on the combinations of these gates used, various operations can be performed in a circuit
 - a. logic gate
 - b. bioactive
 - c. passivate
 - d. composite

10. relating to biological and medical systems
 - a. bioinert
 - b. biomedical
 - c. nitinol
 - d. bioactive

11. circuits that form multiple pathways or branches that enable a range of separate paths for current flow
 - a. ceramic
 - b. antiseptic
 - c. parallel circuit
 - d. fulcrum

12. material that is compatible with biological processes
 - a. bioactive
 - b. biocompatible
 - c. composite
 - d. biomedical

13. an alloy of nickel and titanium in almost equal proportions with shape memory properties
 - a. bioactive
 - b. nitinol
 - c. fulcrum
 - d. bioinert

14. multi-phase materials formed from a combination of materials, which differ in composition or form
 - a. corrosion
 - b. composite
 - c. logic gate
 - d. passivate

15. a ceramic produced through the fusing of inorganic materials and cooled to a hard condition without any crystalline structure developing; it is amorphous
 - a. fulcrum
 - b. lever
 - c. glass
 - d. ceramic

16. materials that actively promote biological interaction
 - a. nitinol
 - b. biomedical
 - c. bioinert
 - d. bioactive

17. casting process also known as lost wax casting
 - a. investment casting
 - b. antiseptic
 - c. biomedical
 - d. aseptic

18. the principle bone salt $\text{Ca}(\text{PO}_4)_3\text{OH}$ which provides the compressive strength of vertebrate bone
- hydroxyapatite
 - composite
 - bioactive
 - biocompatible
19. without germs
- aseptic
 - antiseptic
 - lever
 - ceramic
20. an electro-chemical reaction that results in the conversion of metallic materials into oxides, salts or other compounds, metals that undergo corrosion lose strength, ductility and other important mechanical properties
- composite
 - corrosion
 - amorphous
 - ceramic