

11 Engineering 7 Biomedical Engineering - Part 1

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1. amorphous	materials usually characterised by certain areas of short-range order; as in crystals, does not exist in amorphous substances
2. antiseptic	against germs
3. aseptic	without germs
4. binary code	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'
5. bioactive	materials that actively promote biological interaction
6. biocompatible	material that is compatible with biological processes
7. bioinert	materials that do not promote or retard biological interaction
8. biomedical	relating to biological and medical systems
9. ceramic	a multi-phase material containing phases composed of metals and non-metals, ceramics are typically hard and brittle with good insulating properties
10. composite	multi-phase materials formed from a combination of materials, which differ in composition or form
11. corrosion	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
12. fulcrum	point about which a lever arm moves
13. glass	a ceramic produced through the fusing of inorganic materials and cooled to a hard condition without any crystalline structure developing; it is amorphous
14. hydroxyapatite	the principle bone salt Ca(PO4)3OH which provides the compressive strength of vertebrate bone
15. investment casting	casting process also known as lost wax casting
16. lever	a simple machine that can be sued to magnify effort or motion
17. logic gate	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
18. nitinol	an alloy of nickel and titanium in almost equal proportions with shape memory properties

19. parallel circuit	circuits that form multiple pathways or branches that enable a range of separate paths for current flow
20. passivate	to treat or coat a metal in order to reduce the

chemical activity of its surface