

## 15 Multiple choice questions

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1. an artificial part used to replace a damaged or diseased body part
  - a. sepsis
  - b. PIC
  - c. prosthesis
  - d. torque
2. a simple series connection provides only on pathway for current to flow; parallel circuits form multiple pathways or branches that enable a range of separate paths for current flow
  - a. sepsis
  - b. series circuit
  - c. weld decay
  - d. resorb
3. biological process of dissolving and assimilating tissue such as bone
  - a. resorb
  - b. PIC
  - c. torque
  - d. sepsis
4. a healthy process used in powder metallurgy, involving the consolidation of metallic powder into a solid compact; temperatures below the melting point of the metal powders are used such that fusion takes place by a process of solid state diffusion
  - a. titanium
  - b. sepsis
  - c. torque
  - d. sintering
5. a programmable interface controller, a small computer complete with input, output and memory that can be programmed to perform simple tasks
  - a. sepsis
  - b. PIC
  - c. torque
  - d. resorb

6. non-ferrous metal used extensively in industry due to its high resistance to corrosion and good strength-to-weight ratio; these properties along with excellent biocompatibility has seen titanium and its alloys used in biomedical applications
  - a. titanium
  - b. torque
  - c. sintering
  - d. PIC
7. a temporary structure that allows support for biological growth of bone or tissue
  - a. sintering
  - b. resorb
  - c. sepsis
  - d. scaffold
8. a popular term for a defect that may occur as result of welding stainless steels; the region adjacent to the weld may reach a sufficiently high temperature to precipitate chromium carbides at the grain boundaries; the region adjacent to the grain boundaries are consequently depleted in chromium, resulting in a loss of corrosion resistance
  - a. resorb
  - b. prosthesis
  - c. weld decay
  - d. sepsis
9. the moment of a force; a measure of a force's tendency to produce torsion and rotation about axis
  - a. sepsis
  - b. PIC
  - c. resorb
  - d. torque
10. allows for re-charging of implanted devices through the skin without direct contact about an axis
  - a. transcutaneous charging
  - b. prosthesis
  - c. sintering
  - d. truth table
11. ability of a metal to return to change between two shapes on heating and cooling
  - a. shape memory alloy
  - b. plasma spray
  - c. weld decay
  - d. scaffold

12. iron base alloys of 13-30wt% Cr named for their resistance to discolouration or staining due to corrosion
- a. sepsis
  - b. sintering
  - c. prosthesis
  - d. stainless steel
13. used in digital electronics, this predicts the output of a circuit under all possible combinations of input and output conditions
- a. titanium
  - b. torque
  - c. truth table
  - d. prosthesis
14. germs
- a. sepsis
  - b. resorb
  - c. prosthesis
  - d. PIC
15. a technology used to apply coatings by bio-inserts by spraying powdered particles transformed into plasma, accelerated and deposited in a molten form onto implant surfaces
- a. scaffold
  - b. plasma spray
  - c. prosthesis
  - d. weld decay