

Biomedical Engineering B

1. Explain (3p)

- Physical Degradation
- Neutral interaction of the body to an implant
- Grain boundary
- Crevice corrosion
- Osteoconduction
- Bioactive glass

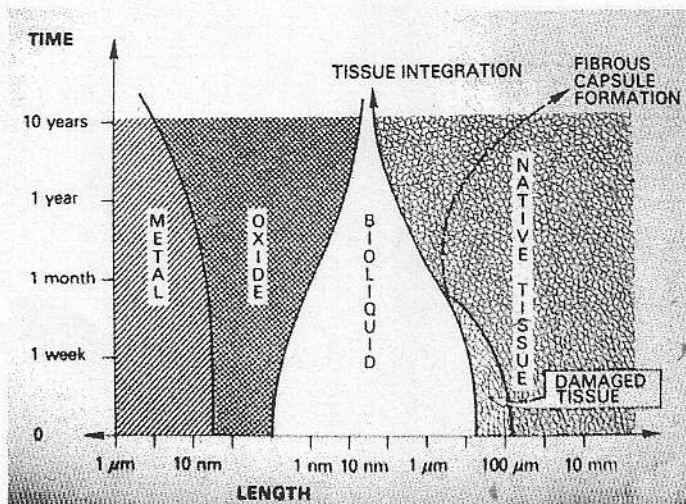
2. Describe the shape memory effect, name a material and a purpose for its use in biomedical applications (3p)

3. a) What is alumina, how and why it is used how does it interact with the tissue it is used with? (3P)

b) How does the Bioactive glass differ (material/use/interactions) from Alumina ? (3P)

4. What role does the biomaterial surface play in the interactions between the material and the tissue (3p)

5. Explain the following graph (3p)



6. Classification of biomaterials, what are the different methods for classification, give examples of the materials on different categories. (6P)

7. Compare the properties of different medical polymers and relate those properties to the applications and interactions in the body around them. (6p)