

Assignment 8

1. Provide a few applications of synthetic biomaterials. Detail the specific requirement of materials in those applications.
2. Differentiate between designing contact type and non-contact type implant biomaterials.
3. Explain the blood-material interaction when an implant is inserted in body.
4. Describe the requirements of biomaterials for heart-valves and vascular grafts.
5. Differentiate between venous homografts and arterial xenografts.
6. What are catheters? What are they used for?
7. Describe the functioning of a pacemaker.
8. Explain various parts of a pacemaker and detail the various components requirements of pacemaker.
9. How polymers provide blood-substitute? What is the role that polymers play in replacing the functioning of hemoglobin?