

IV B.Tech II Semester Supplementary Examinations, Apr/May 2006

BIOMATERIALS

(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. Explain significance of the terms- Surface energy, contact angle, critical surfaces tension, and electro capillary effect. [16]
2. Explain in detail all the medical applications of 316L stainless Steel. [16]
3. List the polymers used as biomaterials and give their important features. [16]
4. Give some polymers used as oxygenators. What are their suitable features? [16]
5. Discuss in detail, the medical uses of bioinert bioceramics. [16]
6. Compare in vivo and in vitro testing of biomaterials. [16]
7. Describe the implants used for the attachment of dentures. Discuss the features of allogenic tooth transplants. [8+8]
8. What post-implantation methods are adopted to ascertain proper implantation? [16]
