

2006 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS

**BIO MATERIALS**  
(BIO-MEDICAL ENGINEERING)

APR/MAY 2006

TIME - 3 HOUR  
MARK - 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.* [16]
8. *What post-implantation methods are adopted to ascertain proper implantation?*