

III B.Tech I Semester Supplementary Examinations, November 2006
BIO-MEDICAL EQUIPMENT
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. What are various types of electrodes used in EEG measurement and how EEG is acquired using 10-20 electrode system explain the salient features of the system? [16]
2. What is P^H ? What is the principle of P^H measurement? Discuss various types of electrodes used for P^H measurement? [16]
3. (a) What is a phonocardiograph? Explain the origin of heart sounds? Explain how it is measured using a phonocardiograph? [8]
(b) List out general considerations for bioelectric recorder amplifier? [8]
4. (a) Give the classification of pacemakers? Explain the principle of operation of n-demand external pacemaker? [8]
(b) what are the different safety measures to be taken while using Defibrillators? [8]
5. (a) Explain in how many ways you can apply electrodes while treating a patient with short wave diathermy. Describe Diapulse therapy? [8]
(b) Explain the electronic neuro stimulator. [8]
6. (a) Explain the working of nebulizers in the hospital environment? [8]
(b) Discuss the advantages and disadvantages of different types of ventilators. [8]
7. What is the use of recorder in medical system? Discuss any two types of recorders in detail. [16]
8. List different leakage currents. Discuss a method to reduce it? [16]
