Code No: NR211103 **NR**

II B.Tech I Semester Supplementary Examinations, November 2005
BIO-ELECTRICITY AND ELECTRODES
(Bio-Medical Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Explain the terms conduction, propagation and transmission in terms of nerve impulse. [10]
   (b) Neuromuscular junction. [6]
2. How polarised synapses differ from nonpolarised synapses. Explain transmission at neuromuscular junction. [16]
3. (a) Explain the conduction system of heart with a neat sketch? [8+8]
   (b) Explain about normal pacemaker of heart?
4. Explain how the PQRST complex of the ECG waveform is generated in the heart. [16]
5. What are the bioelectric sources used in volume conductor fields? [16]
6. (a) Explain a case for Electrode-Electrolyte interface? [8+8]
   (b) Also explain, in what ways the study of electrode-electrolyte interface helps in Understanding the volume conductor fields.
7. (a) Discuss the velocity of neuromuscular transmission and their changes in normal and abnormal states. [8+8]
   (b) Explain the chemical significance of fatigue?
8. Explain how tissue resistance is measured. [16]

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