

**Code No: C8807**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**M.Tech I - Semester Examinations, March/April-2011**

**BIOMEDICAL INSTRUMENTATION**

**(ELECTRONICS AND INSTRUMENTATION)**

**Time: 3hours**

**Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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1. a) Explain the electrodes used for ECG measurement.  
b) Briefly explain resting action potentials with necessary diagrams. [12]
2. a) Explain phonocardiography with necessary sketches.  
b) Write short notes on:  
i) Vector cardiography  
ii) Echocardiography. [12]
3. With neat sketches explain any two methods of measurements of blood flow. [12]
4. a) Explain the functioning of defibrillators.  
b) Write a note on ultrasonography. [12]
5. a) Describe with a neat block diagram computer tomography (CT).  
b) Explain any one application of lasers in medicine. [12]
6. Explain the method of continuous monitoring of foetal scalp pH. [12]
7. a) Describe the functioning of speech audiometer system.  
b) Explain the applications of audiometer. [12]
8. a) Explain in detail the measurement of pH in blood.  
b) Describe with a neat diagram the coulter counter. [12]

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