



(Pages : 2)

1497

Reg. No. : 07.....

Name : Anukumar.M.G



**Sixth Semester B.Tech. Degree Examination, May 2014
(2008 Scheme)**

08.606 (Elective – II) (b) : BIOMEDICAL INSTRUMENTATION (E)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

1. Define the terms depolarization, repolarization and after potential.
2. What are the types of electrodes used in EEG recording ?
3. Describe any two methods for temperature measurements.
4. Explain any indirect method for measuring blood flow.
5. Write a note on Einthoven Triangle.
6. Draw the 10-20 electrode system in EEG recording.
7. Why an audio system is available in most EMG systems, unlike ECG and EEG ?
8. Explain the principle of X rays.
9. What are the advantages of ultrasound scanning ?
10. Write a note on shock hazards.

(10×4=40 Marks)

PART – B

Answer **any one** question from **each** Module. **Each** question carries **20** marks.

Module – I

11. a) Explain the ECG electrodes. What are the investigations can be obtained from ECG waveforms ?
b) Describe any method for measurement of respiration rate.
12. a) Explain in detail one direct and one indirect method of BP measurement.
b) Write a note on Korotkoff sounds.

**Module – II**

13. With the help of block diagram, explain the working of computer aided ECG machine.
14. What is a bedside monitor ? Draw the detailed block diagram and explain.

Module – III

15.
 - a) Draw block diagram and explain the working of ultrasound scanning.
 - b) Write down the principle of MRI scanning.
 16.
 - a) Describe the working of cardiac pace makers. What is a demand pacemaker ?
 - b) How a defibrillator works in emergency for a cardiac patient ?
-