

Paper Code: EEE-051

Roll No.

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B.Tech.
(SEM VIII) EVEN SEMESTER EXAMINATION, 2015-16
BIO INSTRUMENTATION

[Time: 3 hrs.]

[Max. Marks: 100]

Note: - Attempt all questions. All questions carry equal marks.

1. Attempt any four parts of the following:- [5x4=20]
 - (a) What is the function of Cell?
 - (b) What are resting and action potentials?.
 - (c) Give the names of the different systems in our body.
 - (d) What is meant by CNS and PNS?
 - (e) What are the different ways of transport of ions through the cell membrane?
 - (f) Define neuron and Nerve fiber.

2. Attempt any two parts of the following:- [10x2=20]
 - (a) With relevant graph explain the relationship between the action potential and Muscle contraction.
 - (b) Explain with neat sketch anatomy and conducting system of heart. Also discuss cardio vascular circulating system with block diagram.
 - (c) Define Einthoven Triangle and lead systems

3. Attempt any two parts of the following:- [10x2=20]
 - (a) Explain with neat sketch anatomy and physiology of central nervous and peripheral nervous system.
 - (b) Explain organization of brain
 - (c) Explain skin temperature measurement techniques

4. Attempt any two parts of the following:- [10x2=20]
 - (a) Explain elements of intensive care unit
 - (b) Explain pacemakers , modes and generators
 - (c) Explain defibrillators

5. Attempt any two parts of the following:- [10x2=20]
 - (a) Explain instrumentation scheme for x rays
 - (b) Explain methods for electrical accident prevention
 - (c) Explain automation in chemical tests