



Reg. No. :

Name :

**Second Semester M.Tech. Degree Examination, December 2016
(2013 Scheme)
Electronics and Communication Engineering
TSE 2004 : BIOMEDICAL SIGNAL PROCESSING AND SYSTEMS**

Time : 3 Hours

Max. Marks : 60

Instructions : 1) Answer *any two* questions from *each* Module.
2) **Each** question carries **10** marks.

MODULE – I

1. a) How bioelectric potentials are generated ?
b) Draw the cardiac electrical potential and explain its timings.
2. a) How bioelectric potentials are monitored and measured ?
b) Differentiate between digital and analog filters.
3. a) What is meant by EOG ? Explain with neat diagram.
b) What is the electrode configuration for EMG ? Explain.

MODULE – II

4. Explain about conduction system of the heart with neat sketch.
5. a) Draw Einthoven equilateral triangle and explain.
b) What is meant by evoked potential ? How it is estimated ?
6. a) What are EEG signals ?
b) What are diseases diagnosed with the help of EEG ?

MODULE – III

7. What are biomaterials ? Explain practical aspects of biomaterials.
 8. What are the implants associated with bones ? Explain.
 9. What is meant by biometrics ? How are they used ?
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