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G.R. No.	
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Paper Code - P119-143 (T1)

OCTOBER 2019 / INSEM (T1)

F. Y. M. TECH. (E&TC Engineering) (SEMESTER - I)

COURSE NAME: BIOMEDICAL SIGNAL PROCESSING

COURSE CODE: ETPA11183C

(PATTERN 2018:R1)

Time: [1 Hour]

[Max. Marks: 20]

(*) Instructions to candidates:

- 1) Answer Q.1 OR Q.2, Q.3 OR Q.4
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed
- 4) Use suitable data where ever required

Q.1) Explain any four biosignals. State the sources of contamination for ECG signal [10 marks]

OR

Q.2) Explain how a bio electrode acts as a transducer with suitable equivalent diagram. State the electrodes used for acquisition of ECG, EEG, EOG and EMG. [10 marks]

Q.3) Explain the different types of Electrodes used in biomedical systems with their properties and the material used for the same. [10 marks]

OR

Q.4) Explain Polarization, depolarization, Repolarization, absolute refractory period, relative refractory period for a Bio Cell. What is the value of Polarization Potential? What is the value of action potential? [10 marks]
