

Reg. No. :

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 37503**

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Seventh Semester

Electronics and Instrumentation Engineering

01UEI703 - BIOMEDICAL INSTRUMENTATION

(Common to Instrumentation and Control Engineering)

(Regulation 2013)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

**(Answer any ten of the following questions)**

1. What is 'repolarization'?
2. List the different types of electrodes.
3. Mention the various applications of phonocardiogram.
4. Define the term latency in EMG.
5. What is 'cardiac output'?
6. Discuss about the origin of heart sounds.
7. List out the types of dialyzers.
8. What is micro shock?
9. What is "CT Number"?
10. Give the block diagram of a bio-telemetry system.

11. Discuss about the origin of heart sounds.
12. Expand the term 'SIMV' used in ventilators.
13. What is micro shock?
14. Distinguish the terms "PET and "SPECT".
15. Give the block diagram of a bio-telemetry system.

PART – B (3 x 10= 30 Marks)

**(Answer any three of the following questions)**

16. Explain in detail about the generation and propagation of action potential through nerve-muscle cells. (10)
17. Explain the working of (i) EEG Recorder (ii) EMG System. (10)
18. Explain about the Indirect methods of blood pressure monitoring. (10)
19. In detail, explain the working of Heart Lung machine with neat diagram. (10)
20. Explain the construction and working of a computed tomography system. (10)