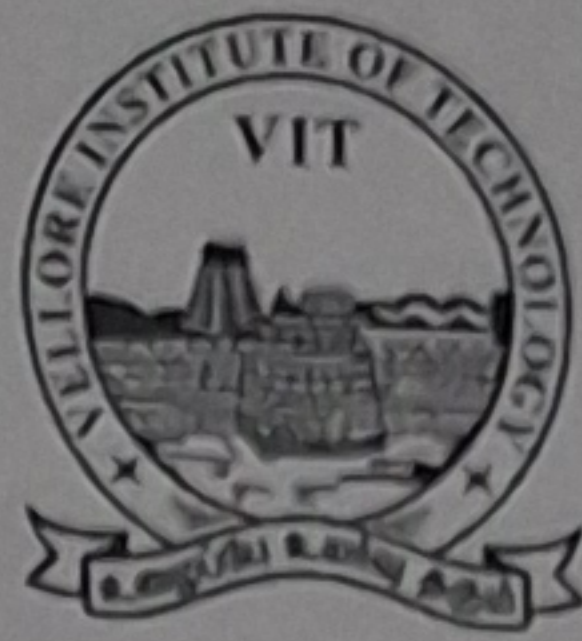




SCHOOL OF HEALTHCARE SCIENCE AND ENGINEERING
CONTINUOUS ASSESSMENT TEST -I
FALL SEMESTER 2025-2026

SLOT: F2+TF2

Programme Name & Branch : B.Tech BHT
Course Code : BHST204L
Course Name : Medical Electronics
Faculty Name(s) : Dr. Kishor Lakshminarayanan
Class Number(s) : VL2025260100964
Date of Examination : 22/08/2025
Exam Duration : 90 minutes Maximum Marks: 50

Q. No	Question	Marks
1.	Explain the basic components and functions of a biomedical instrumentation system. Illustrate your answer with practical medical applications.	10
2.	Differentiate between various bioelectric signals (ECG, EMG, EEG). How are these signals generated in the body and acquired for clinical use?	10
3.	Compare and contrast surface, needle, and microelectrodes. In what clinical situations is each type most appropriate?	10
4.	Illustrate the full process of acquiring an EMG signal, starting from the electrode to the final processed signal display.	10
5.	A hospital faces repeated issues with noise in patient monitoring systems. Analyze potential causes and propose a signal conditioning strategy to mitigate noise.	10