

Code No: **R204104Y**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Advanced Supplementary Examinations March 2025
BIO MEDICAL INSTRUMENTATION

(Open Elective)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from Each unit
All Questions Carry Equal Marks

UNIT-I

1. a) Explain in detail about Propagation of Action Potentials. [7M]
b) Write short notes on Bioelectric Potentials? [7M]

(OR)

2. a) Give overview on biomedical signals? [7M]
b) Discuss about Biochemical Transducers. [7M]

UNIT-II

3. a) Evaluate ECG rhythm analysis? [7M]
b) Explain the analysis of event related potentials in ECG. [7M]

(OR)

4. a) Analyze correlation analysis of EEG channels? [7M]
b) Explain correlation of muscular contraction. [7M]

UNIT-III

5. a) Analyze respiratory theory equipment? [7M]
b) Evaluate the analysis of respiration in detail? [7M]

(OR)

6. a) What are the tests and instrumentation used for mechanics of breathing? [7M]
b) Write short notes on defibrillators? [7M]

UNIT-IV

7. a) What are the Physiological parameters adaptable to bio telemetry? [7M]
b) Discuss about Bio telemetry in clinical laboratory. [7M]

(OR)

8. a) What are the components in bio telemetry system, explain in detail? [7M]
b) Describe automation of chemical tests in telemetry of patient care? [7M]

UNIT-V

9. a) Demonstrate Physiological effects of electrical current? [7M]
b) Discuss about shock Hazards from electrical equipment. [7M]

(OR)

10. a) What are the Methods of accident prevention? [7M]
b) Demonstrate about Magnetic resonance Imaging System? [7M]
