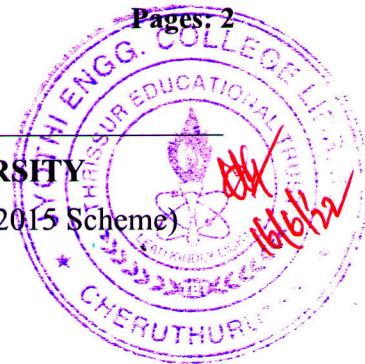


Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sixth Semester B.Tech Degree (S,FE) Examination May 2022 (2015 Scheme)

**Course Code: EE372****Course Name: BIOMEDICAL INSTRUMENTATION**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all questions, each carries 5 marks.*

Marks

- | | | |
|---|---|-----|
| 1 | Explain about anatomy of human nervous system. | (5) |
| 2 | Draw and explain Einthoven triangle? | (5) |
| 3 | Explain about impedance plethysmography. | (5) |
| 4 | Distinguish between internal and external pacemakers. | (5) |
| 5 | With neat diagram explain angiography | (5) |
| 6 | What is diathermy? What are its applications? | (5) |
| 7 | What is haematocrit? | (5) |
| 8 | Explain about automatic blood cell counter. | (5) |

PART B*Answer any two full questions, each carries 10 marks.*

- | | | |
|----|--|------|
| 9 | Explain about man instrument system with relevant block diagram | (10) |
| 10 | What are the various types of transducers used in Biomedical engineering?
Explain | (10) |
| 11 | a) Explain about different types of standard bipolar leads used to measure ECG | (5) |
| | b) Distinguish between resting and action potential. | (5) |

PART C*Answer any two full questions, each carries 10 marks.*

- | | | |
|----|--|------|
| 12 | a) Explain about palpatory method to measure blood pressure. | (5) |
| | b) Explain any method to measure blood flow | (5) |
| 13 | Explain about different types of defibrillators | (10) |
| 14 | a) Write a short note on phonocardiography | (5) |
| | b) With neat diagram explain the working of spirometer | (5) |

PART D*Answer any two full questions, each carries 10 marks.*

- | | | |
|----|--|------|
| 15 | With neat diagram explain the working of X-ray machine. What are the uses of X-rays in medicine? | (10) |
|----|--|------|

- 16 Write short notes on a) Spectrophotometer b) Flame photometer (10)
- 17 a) What is lithotripsy? How it works? (5)
- b) Explain the principle of colorimeter analysis. (5)
