



C16-AEI-502

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BOARD DIPLOMA EXAMINATION, (C-16)

MARCH/APRIL—2021

DAEI - FIFTH SEMESTER EXAMINATION

BIOMEDICAL INSTRUMENTATION

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define resting potential.
2. Draw the ECG waveforms.
3. List the applications of ECG.
4. Draw the block diagram of EMG.
5. Draw the block diagram of electromagnetic flow meter.
6. List the types of indirect blood pressure measurements.
7. List the types of pacing modes.
8. State the importance of dialysis.
9. List any three advantages of MRI scanner.
10. Define micro shock.

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PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the different types of electrodes used for ECG, EEG and EMG.
12. Explain the ECG lead configurations.
13. Explain the block diagram of EEG machine.
14. Explain the direct blood pressure measurement methods.
15. Explain the working of ultrasonic blood flow meter based on transit time.
16. Explain the circuit diagram of AED defibrillators.
17. Explain the working of CAT scanner with block diagram.
18. Explain the patient monitoring in ICU and draw the system of arrangement.

A.A.N.M & V.V.R.S.R POLYTECHNIC, GUDLAVALLERU, KRISHNA

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