

Seat  
No.

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CEI1322

**Medical Electronics**  
**(New) (1010)**

**P. Pages : 2**

**Time : Three Hours**

**Max. Marks : 100**

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any two** questions from each unit.
5. Figures to right indicate full marks.

**UNIT - I**

1. Solve any two. 20
- a) Draw the basic medical instrumentation system and explain the same in detail.
  - b) Explain block diagram of digital storage oscilloscope.
  - c) Write short note on :
    - i) XY recorders.
    - ii) Body potential.

**UNIT - II**

2. Solve any two. 20
- a) Draw & explain the circulatory system.
  - b) Explain ventricular Fibrillation in detail.
  - c) What is use of pacemakers. Explain any one pacemaker in detail.

**UNIT - III**

3. Solve any two. 20
- a) Comment on significance of EEG. Explain analysis of same.
  - b) Explain central Nervous system in detail.
  - c) Write short note on :
    - i) Paralysis.
    - ii) EEG Amplifier.

**UNIT - IV**

4. Solve any two. 20
- a) Explain working of spirometer in detail.
  - b) Write short note on ultrasonic blood flow meter.
  - c) Explain multi-channel patient monitoring telephone telemetry system in detail.

**UNIT - V**

5. Solve any two. 20
- a) Write short note on MRI.
  - b) Draw block diagram of basic pulse echo system. Explain it in detail.
  - c) Discuss applications of x-ray in medical field.

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