



C09-AEI-603

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2013
DAEI—SIXTH 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 and action potentials.
2. What is cardiovascular system?
3. Draw the ECG waveform.
4. List the types of direct BP measurement methods.
5. Classify different types of pacemakers.
6. Define the artificial organ.
7. List the applications of MRI.
8. State the Compton effect.

9. List the effects of micro- and macro-shock.
10. Define the telemedicine.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. (a) Write the subsystems of human body. 5
(b) List the characteristics of human cell. 5
12. Draw the electrocardiogram, indicate its amplitude and duration and state their importance.
13. Explain the electrical activity of brain. Indicate the different frequency regions.
14. Describe the principle of operation of LASER Doppler blood flow meter with a block diagram.
15. Draw and explain the circuit diagram of AC defibrillators.
16. (a) Explain the electric hand and its applications. 5
(b) List the advantages and application of MRI. 5
17. Draw and explain the working of CT scanner.
18. Explain the computerized aid to the physically handicapped.

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