

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Discuss different equipments used in ICU and Trauma centre.
- Q.4 How blood pressure measurement is carried out? Enlist precautions to be taken for accurate results.
- Q.5 Define contact impedance. Explain importance of Electrode-Tissue interface.
- Q.6 Draw and block diagram of EEG machine. Also draw its typical waveforms.
- Q.7 Write short note of any two:
- a) Respiratory rate measurement.
 - b) Blood sugar measurement.
 - c) Heart - lung machine.

No. of Printed Pages : 4

Roll No.

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3rd Sem. / Med. Eltx.

Subject : Biomedical Instrumentation/ Basics of Inst.

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) Units of BP measurement are ____.
- b) Defibrillator
 - c) Cell potential
 - d) Name two EMG electrodes.
 - e) Heart chambers
 - f) Nebulizer
 - g) Multichannel recording
 - h) Blood sugar
 - i) Monitor

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- j) Colonoscopy
- k) Humidifier
- l) Pulse oximeter
- m) ECG lead system.
- n) Amplitude
- o) Instrumentation
- p) Expand EEG
- q) Holter monitor
- r) Contact impedance

SECTION-B

Note: Short answer type questions. Attempt any ten parts
10x4=40

- Q.2
- i) Discuss various electrodes used in EMG.
 - ii) Write the characteristics of pacemaker.
 - iii) Draw block diagram of ECG machine.

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- iv) How Bio-electric signals are recorded?
- v) Discuss Cardio-vascular system with the help of diagram.
- vi) Discuss importance of Defibrillator in intensive care units.
- vii) Explain importance of Treadmill tests.
- viii) Write working principle of Nebulizer.
- ix) Discuss importance of multichannel recording.
- x) Write different equipments used in measurement of respiratory system.
- xi) Write a short note on foetal monitoring.
- xii) Explain the use of multiparameter monitors in biomedical field.
- xiii) Write applications of laser in diagnosis of illness.
- xiv) What is the use of Dialysis machine?
- xv) Write advantages of biomedical equipments in the medical field.

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