

SECTION-C

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

- Q.3 What do you mean by Blood pressure Measurement? Explain innsvasive & Non-Invasive B.P Measurement.
- Q.4 Explain ECG Machine in detail.
- Q.5 What is the purpose of patient Monitoring System? Explain in detail?
- Q.6 What do you mean by electrode? Explain the electrodes used for EEG Measurement.
- Q.7 What do you mean by transducer Explain the following:-
- (i) Piezo-electric transducer.
 - (ii) Chemical transducer.

(40)

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No. of Printed Pages : 4

Roll No.

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5th Sem. / I&C

Subject : Biomedical - Instrumentation

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 a) Physiology.
- b) Body temperature.
- c) Transducer.
- d) EMG.
- e) ERG.
- f) Contact Impedance.
- g) Electrodes.
- h) List two Diagnostic equipment.
- i) LVDT.
- j) Pre- amplifier.

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- k) blood Pressure.
- l) Images Intensifier.
- m) Trouble-shooting.
- n) Gross Current.
- o) Safety standards.
- p) List any two precautions while using X-Ray Machine.
- q) Heart rate.
- r) List two electrodes used for EEG Measurement.

SECTION-B

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

- Q.2
- i) Draw the Labeled diagram of cell structure.
 - ii) Explain Reproduction system.
 - iii) What do you mean by therapeutic equipment? Explain any me.

- iv) Explain any two electrodes used for Recording of EMG.
- v) Explain electrode tissue interface.
- vi) Explain the use of Thermistor for perspiration rate measurement.
- vii) Explain pulse transducer.
- viii) Explain ultrasonic blood flow meter.
- ix) Explain the electrodes used for PH Measurement.
- x) Draw the diagram for ECG lead system.
- xi) Give any four applications of micro processor in patient monitoring.
- xii) List Maintenance procedure of X-Ray machine.
- xiii) Explain Gross Current Shock.
- xiv) Explain the precautions should be one before doing X-Ray.
- xv) Explain Micro Current Shock.