SECTION-D

- **Note:**Long answer type questions. Attempt any three questions out of four questions. (3x10=30)
- Q.33 Explain ECG & its measurements in detail with diagram.
- Q.34 Explain EEG & its measurements with diagram.
- Q.35 Explain Heart lung machine with diagram.
- Q.36 Write note on following:
 - a) Mechanics of Respiration
 - b) Lithotripter

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3rd Sem. / Medical Electronics

Subject : Bio-Medical Instrumentation - I (BMI-I)

Time: 3 Hrs. M.M.: 100

SECTION-A

Note:Objective type questions. All questions are compulsory (10x1=10)

- Q.1 Expand EEG.
- Q.2 Expand NIBP.
- Q.3 Electrode.
- Q.4 Neuron.
- Q.5 Expand TMT.
- Q.6 Heart Rate.
- Q.7 Bradycardia.
- Q.8 Unipolar lead.
- Q.9 Expand EMG.
- Q.10 Define Transducer.

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SECTION-B

- **Note:** Very short answer type questions. Attempt any ten questions out of twelve questions. (10x2=20)
- Q.11 What is Synapse.
- Q.12 Neuromuscular Junction.
- Q.13 Holter.
- Q.14 Tidal Volume.
- Q.15 Respiration rate.
- Q.16 Normal blood Glucose level.
- Q.17 Endoscopy.
- Q.18 Cardiac cycle
- Q.19 SANode.
- Q.20 Draw Normal waveform pattern of ECG.
- Q.21 Humidifier.
- Q.22 Normal sPo2 range.

SECTION-C

- **Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)
- Q.23 Write a note on source of Biomedical signals and their generations.
- Q.24 Write a short note on perspective of Biomedical Engineering.
- Q.25 Explain heart cardiac system.
- Q.26 Explain Einthoven's Triangle with diagram.
- Q.27 Discuss about the brain & its functions.
- Q.28 Write a note on muscular system & its functions.
- Q.29 Explain various electrodes used in EEG measurements.
- Q.30 Write a short note on blood pressure measurement by direct method.
- Q.31 Explain central monitoring system.
- Q.32 Explain intravenous cannuale.

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