

R09

Code: 9A10802

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations, July 2013

BIOMEDICAL INSTRUMENTATION

(Common to E.Con.E & EIE)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Write notes on:
 - (a) Cardiac cycle.
 - (b) Defibrillator.

- 2 Explain the mechanism of conduction through nerve to neuro-muscular junction.

- 3
 - (a) Differentiate between bio-electrodes and bio-potential electrodes.
 - (b) Explain about bio-chemical electrodes.

- 4 Explain the electrode placement for EEG and EMG recording.

- 5 Explain the grounding conditions in hospital environment.

- 6
 - (a) Explain about pneumotachograph.
 - (b) Explain the shortwave diathermy.

- 7
 - (a) Explain the blood pressure and blood flow measurement.
 - (b) Explain about natural protective mechanism.

- 8 Write a short notes on:
 - (a) Bio signals and their characteristics.
 - (b) Hemodialysis machine.
 - (c) Hazards in operation rooms.
