

INST/VII/CBGS/B.I. | 01.12.2016

Biomedical Instrumentation

Q. P. Code : 812102

Duration: 03 Hours.

Total marks: 80



- N. B.** (1) Question No. 1 is **compulsory**.
(2) Answer any **Three** out of remaining questions.
(3) Assumptions made should be **clearly** stated.

Q. 1 Solve any **Four**

20

- Explain Nervous system
- Explain origin of ECG, EMG and EEG.
- What is Hounsfield Number in CT?
- Compare direct and indirect blood pressure measurement

Q. 2) a) Explain types of bio potential electrode

10

b) Explain rate responsive pacemaker with block diagram

10

Q. 3) a) Explain EMG measurement with block diagram

10

b) Explain ultrasonic blood flow measurement

10

Q.4) a) Explain back projection image reconstruction technique in CT with suitable example

10

b) Explain modes of ultrasound imaging

10

Q. 5) a) Explain working of heart lung machine

10

b) Explain working of artificial kidney and precautions to be taken

10

Q.6) a) What is cardiac output? Explain its measurement

10

b) Explain physiological effects of electric current?

10
