

No. of Printed Pages : 4  
Roll No. ....

221064B

**6th Sem. / ECE, ECE ( For Speech and  
Hearing Impaired)  
Subject : Medical Electronics**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which of the following is an example of diagnostic equipment?

- a) ECG machine                      b) Spirometer
- c) Pulseoximeter                      d) All of the above

Q.2 LVDT stands for .

- a) Linear variable differential transformer
- b) Linear varying differential transformer
- c) Linear variable differential transistor
- d) Linear variable differential transformer

(1)

221064B

Q.3 BIS stands for .

- a) Board of Indian standards
- b) Bureau of Indian standards
- c) Bureau of international specifications
- d) Board of international standards

Q.4 Source of Bioelectric potential is \_\_\_\_\_ in nature.

- a) Electronics                      b) Electric
- c) Ionic                                  d) Mechanical

Q.5 Strain gauge is used to measure \_\_\_\_\_.

- a) Temperature                      b) Pressure
- c) Height                                  d) Displacement

Q.6 Which instrument is use clinical detection of heart sounds ?

- a) Stethoscope                      b) Endoscope
- c) Anoscope                                  d) Proctoscope

(2)

221064B

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 What is a cell ?
- Q.8 Define the term pressure transducers.
- Q.9 What is defibrillation ?
- Q.10 Calorimeter is used for\_\_\_\_\_.
- Q.11 MRI stand for\_\_\_\_\_.
- Q.12 Name any two therapeutic equipment.

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What is photoelectric transducer?
- Q.14 What will happen when a current pass through human body.
- Q.15 Explain briefly the ultrasonic imaging system.
- Q.16 What is the use of nebulizer?
- Q.17 Explain briefly the various types of temperature transducers.

- Q.18 Explain Safety Standards .
- Q.19 Give basic idea about contact impedance.
- Q.20 Classify the bio electrodes on the basis of application.
- Q.21 Give the principle of defibrillator.
- Q.22 Illustrate the LVDT type pressure transducer.

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Draw the block diagram of ECG Machine. Explain The working of ECG machine.
- Q.24 Explain any one therapeutic equipment in detail with the help of diagram .
- Q.25 Write a short note on the following:
  - a) Heart rate Measurement
  - b) Safety standards