

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

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

(1)

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(2)

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SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

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. $(8 \times 4 = 32)$

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. $(2 \times 8 = 16)$

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