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**2nd Sem / Medical Electronics**

**Subject : Fundamentals of Medical Electronics**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

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

Q.1 The material used in micro electrode is \_\_\_\_\_

- a) German silver
- b) Copper
- c) Gold
- d) Platinum

Q.2 Recording electrical activities associated with Brain  
is known as \_\_\_\_\_

- a) EEG
- b) EOG
- c) EMG
- d) ECG

Q.3 Passive transducers work on the principle of \_\_\_\_\_

- a) energy conversion
- b) mass conversion
- c) energy alteration
- d) volume conversion

Q.4 LVDT are electrically \_\_\_\_\_

- a) active
- b) passive
- c) active as well as passive
- d) cannot be determined

Q.5 Skin should be \_\_\_\_\_ Before placing the electrodes.

- a) wet
- b) dry
- c) hairy
- d) oily

Q.6 How many Pancreas does a human have?

- a) one
- b) two
- c) three
- d) four

### SECTION-B

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

Q.7 ECG stands for \_\_\_\_\_

Q.8 What is Transducer?

Q.9 What is Micro Electrode?

Q.10 What is Digital Signal?

Q.11 What is Photodiode?

Q.12 DSP Stands for \_\_\_\_\_

### SECTION-C

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

Q.13 What is optical fibre Communication?

Q.14 What is principle of Piezoelectric Transducer?

Q.15 What is microelectrodes?

Q.16 Explain ECG.

Q.17 Write direct writing recorders?

Q.18 What is digital recorder?

Q.19 What is principle of Active Transducer?

Q.20 Explain Electromyograph?

Q.21 What is optical fibre sensor?

Q.22 What is bioelectric signal?

### SECTION-D

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

Q.23 Explain roles of Biomedical Engineer in Healthcare Sector.

Q.24 Explain EMG with Block Diagram

Q.25 Explain Transducers in brief.