Q.30 Explain the behaviour of EEG signal. (CO-5)

Q.31 Explain the principle of defibrillator. (CO-6)

Q.32 What are different methods to measure blood sugar? (CO-6)

Q.33 Write a short note on "Safety standards for medical equipment". (CO-7)

Q.34 Explain in detail, Gross shock. (CO-7)

Q.35 Describe the anatomy of heart. (CO-1)

Section D

Note: Long answer Questions. Attempt any two Questions out of three Questions. (2x10=20)

Q.36 Draw and explain the block diagram of ECG machine. (CO-5)

Q.37 Describe in detail, the reproduction system.(CO-1)

Q.38 Explain the use of microprocessor in patient monitoring. (CO-6)

No. of Printed Pages : 4

Roll No.....

Eltx. Engg.
Subject : Medical Electronics

Time : 3 Hrs. **M.M. : 100**

SECTION-A

Note : Multiple choice questions. All questions are compulsory. (10x1=10)

Q.1 Source of Bioelectric potential is _____ in nature. (CO-1)

a) Electric b) Electronic
c) Ionic d) Mechanical

Q.2 Electrode paste_____. (CO-3)

a) Increases contact impedance
b) Equates contact impedance
c) Reduces contact impedance
d) Absorbs contact impedance

Q.3 Needle electrode is used to measure _____. (CO-3)

a) EKG b) EOG
c) EEG d) EMG

Q.4 MRI stands for _____ (CO-2)

a) Mechanical Resonance Imaging
b) Magnetic Resonance Imaging
c) Mutually Related Imaging
d) Magnetic Resultant Imaging

Q.5 The basic functional unit of nervous system is _____. (CO-1)

a) Nerves b) Axon
c) Dendrite d) Neuron

Q.6 Time for the sensor to reach a stable output once it is turned on is called_____. (CO-4)

a) Frequency response b) Settling time
c) Response time d) Span

Q.7 Which of the following instrument is used for recording the electrical activity of the brain?(CO-3)

a) ECG b) EMG
c) PCG d) EEG

Q.8 Normal body temperature (CO-6)

a) 37K b) 37 degree Celsius
c) 98 degree Celsius d) 240 K

Q.9 IN human being the duration of cardiac cycle is _____. (CO-1)

a) 0.008 second b) 0.05 second
c) 0.8 second d) 8 second

Q.10 What is the maximum harmless current? (CO-7)

a) 1mA b) 5 mA
c) 50 mA d) 6A

Section B

Note: Objective types Questions. All Questions are compulsory. (10x1=10)

Q.11 Define Arteries. (CO-1)

Q.12 What is the function of cardiac muscle? (CO-1)

Q.13 Name any two types of diagnostic instruments. (CO-2)

Q.14 Define resting potential. (CO-3)

Q.15 Define flow transducer. (CO-4)

Q.16 Write full form of EEG. (CO-5)

Q.17 Name one method to measure blood pressure.(CO5)

Q.18 Define non-invasive measurement. (CO-6)

Q.19 Define respiration rate. (CO-6)

Q.20 Define micro-current shock. (CO-7)

Section- C

Note: Short answer type Questions. Attempt any twelve Questions out of fifteen Questions. (12x5=60)

Q.21 Explain the elementary idea of cell structure.(CO-1)

Q.22 Explain the mechanism of breathing. (CO-1)

Q.23 Define and classify therapeutic instruments.(CO-2)

Q.24 What is Nebulizer? Write its applications. (CO-2)

Q.25 Which electrodes are used for EEG measurement? (CO-3)

Q.26 What are different types of electrodes? (CO-3)

Q.27 What is pressure sensor? Explain any one most common types of pressure transducer. (CO-4)

Q.28 Write a short note on "Pulse sensor". (CO-4)

Q.29 Explain the basic principle of EMG machine.(Co5)