

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. $(2 \times 8 = 16)$

Q.23 Explain Autoclave machine in details with diagram

Q.24 Explain EEG machine with diagram.

Q.25 Explain Dialysis unit with diagram.

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Roll No.

223234

3rd Sem / Medical Electronics

Subject : Bio-Medical Instrumentation-I (BMI-I)

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory $(6 \times 1 = 6)$

Q.1 The term 'Montage' refers to

- a) ECG
- b) EEG
- c) EMG
- d) None of the above

Q.2 One cardiac cycle completes about in

- a) 0.5 sec
- b) 1.5 sec
- c) 0.8 sec
- d) 1 sec

Q.3 EMG measurement is used for

- a) Heart
- b) Brain
- c) Kidney
- d) Muscles

Q.4 Contraction phase of heart chambers is called

- a) Fibrillation
- b) Platelets
- c) Systole
- d) Diastole

Q.5 Heart rate of a healthy person in resting state should be :-

- a) 90 Beats/minute
- b) 72 beats / minute
- c) 120 beats / minute
- d) 45 beats / minute

Q.6 Reference Electrode in ECG measurement is placed on

- a) Right Arm
- b) Chest
- c) Left Arm
- d) Right Leg

SECTION-B

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

Q.7 Biomedical signal

Q.8 SA Node

Q.9 Cardiac cycle

Q.10 Unipolar lead

Q.11 Transducer

Q.12 Expand CSF

SECTION-C

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

Q.13 Explain cardiac system with diagram.

Q.14 Write a note on Ambulatory Monitoring system .

Q.15 Discuss different ECG Electrodes used in ECG Measurement.

Q.16 Explain Einthoven's Triangle with diagram.

Q.17 Discuss different biomedical signals & their generations

Q.18 Explain central nervous system and its functions.

Q.19 Discuss brain Waves with diagram.

Q.20 Write a short note on blood pressure measurement by direct method.

Q.21 Write a note on central monitoring system in hospitals.

Q.22 Discuss the effects of artifacts in ECG measurement.