

**3rd Sem. / Medical Electronics
Subject : Bio medical Instrumentation-I**

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

- Q.1 Which medical equipment uses in ICU
a) ECG Machine b) Pulse Oximeter
c) Patient Monitor d) All of the above
- Q.2 Which instrument is used for blood pressure measurement?
a) Sphygmomanometer b) Endoscope
c) Colonoscope d) None of the above
- Q.3 Which is called Natural Pacemaker?
a) Aorta b) SA Node
c) AV Node d) Bundle of HIS
- Q.4 Letter F in EEG measurement denotes
a) Frontal Lobe b) Tympanic membrane
c) Trace d) Temper

- Q.5 Defibrillators is used of
 a) Frontal Lobe b) Tympanic membrane
 c) Trace d) Temper
- Q.6 Which is not a blood component?
 a) RBC b) Platelets
 c) Neuron d) Plasma
- Q.14 Explain ECG Electrodes & cables.
 Q.15 Explain Block diagram description of ECG machine.
 Q.16 Explain block diagram description of EEG machine.
 Q.17 Write a note on Brain Waves.
 Q.18 Explain Patient Monitoring system with diagram.
 Q.19 Explain Intravenous cannula with description.
 Q.20 Write a note on Infusion Pump.
 Q.21 Explain construction & working of Oxygen concentrator with diagram.
 Q.22 Explain construction & working of Radiant warmer with diagram.

Section-B

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

- Q.7 Systolic Blood Pressure.
 Q.8 Normal Blood Pressure Range.
 Q.9 Normal Glucose Range.
 Q.10 Infection.
 Q.11 Sterilization.
 Q.12 Motion Artefacts

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. $(8 \times 4 = 32)$

- Q.13 Explain Human Cardiac system & its working.

Section-D

- Note:** Long answer questions. Attempt any two question out of three Questions. $(2 \times 8 = 16)$
- Q.23 Explain principle and working of Autoclave Machine with diagram.
 Q.24 Explain different methods of blood pressure measurement.
 Q.25 Explain principle and working of EEG Machine with diagram.