

- Q.26 Explain Operating Theatre Table with diagram.
- Q.27 Write a note on Suction apparatus with block diagram
- Q.28 Explain Electro-Surgery with diagram.
- Q.29 Explain single channel telemetry system
- Q.30 What is pacemaker. Explain it.
- Q.31 Explain Tread mill Test.
- Q.32 Explain CPAP.
- Q.33 Write a note on Medical Gas supply system in Hospital.
- Q.34 Write a note on operation theatre instrumentation.
- Q.35 Discuss role of Biomedical Engineers in Healthcare industry.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain need of Defibrillator. Explain Defibrillator with circuit diagram.
- Q.37 Explain need of Anaesthesia. Explain Anaesthesia work station in details.
- Q.38 Explain artificial ventilation. Also discuss ventilator with diagram.

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4th Sem / Med. Eltx
Subject:- Biomedical Instrumentation- II / Biomed. Instrumentation

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 What is the frequency range for electro surgery techniques?
- a) 10 - 500 KHz b) 1 - 50 Hz
c) 1 - 3 MHz d) None of the above
- Q.2 What is pressure range for suction pump
- a) 0 - 10 mm of Hg b) 15 - 20 mm of Hg
c) 0 - 50 mm of Hg d) None of the above
- Q.3 EMG measurement is done for
- a) Heart b) Liver
c) Brain d) Muscles
- Q.4 Which of the following is a radiology instrument?
- a) PH Meter b) CT Scan
c) Blood cell counter d) None of the above

Q.5 What should be the temperature range for operating room

- a) 10°F - 20°F b) 25°F - 50°F
- c) 72°F - 78°F d) None of above

Q.6 Normal EEG Frequency range is

- a) 50-500 Hz b) 0.5-50 Hz
- c) 0.05 - 5 Hz d) 1-200 Hz

Q.7 Which is called Natural Pacemaker?

- a) Aorta b) Bundle of HIS
- c) AV Node d) SANode

Q.8 Voltage applied during electric shock in fibrillation is

- a) 0 - 250 V b) 200 - 500 V
- c) 750-800 V d) None of above

Q.9 How many heart valves does the heart have

- a) 4 b) 2
- c) 3 d) 6

Q.10 Which gas out of following is a part Central Medical gas supply in hospital

- a) Air b) Oxygen
- c) Nitrous Oxide d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Expand ICU

Q.12 Expand IBP.

Q.13 Prosthetics

Q.14 Expand NCCU

Q.15 Telemedicine

Q.16 Expand IABP

Q.17 Vital Capacity

Q.18 Expand SIMV

Q.19 OT Table

Q.20 Minute Volume

SECTION-C

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

Q.21 Explain construction and working of Syringe Pump.

Q.22 Write a note on Prosthetics & Orthotics.

Q.23 Explain Critical care instrumentation.

Q.24 Write a short note on IABP.

Q.25 Explain any two major equipments used in NICU.