

- Q.25 Explain any three major equipments used in ICU.
- Q.26 Explain Operating Room Instrumentation.
- Q.27 Explain Suction machine with block diagram.
- Q.28 Write a note on Electrosurgical unit.
- Q.29 Write a note on operation theatre Table.
- Q.30 Explain Artificial Pacemaker in details.
- Q.31 Explain Exercise testing test.
- Q.32 Explain CPAP.
- Q.33 Write a note on Medical Gas supply system in Hospital.
- Q.34 Explain the importance of CSSD in operating room.
- Q.35 Explain IABP.

SECTION-D

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

- Q.36 What is Fibrillation. Explain Defibrillator in details.
- Q.37 Explain Anesthesia machine with diagram.
- Q.38 Explain Ventilator with its classification & different ventilation modes.

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4th Sem / Medical electronics
Subject : Bio-Medical Instrumentation-II (BMI-II)

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

SECTION-A

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

- Q.1 What is O₂ + Flush flow in anaesthesia
a) 0-20 L/min b) 35-75 L/min
c) 0-50 L/min d) None of the above
- Q.2 What is pressure range for suction pump.
a) 0-10 mm ofHg b) 15-20 mm ofHg
c) 0-50 mm ofHg d) None of the above
- Q.3 ECG measurement is done for
a) Heart b) Liver
c) Brain d) Muscles
- Q.4 The range of Respiration Rate of a person at rest
a) 12-20 breaths/min b) 20-50 breaths/min
c) 50-100 breaths/min d) None of above

- Q.5 What should be the Humidity range for operating room
a) 20-40% b) 50-60%
c) 70-90% d) None of above
- Q.6 Residual Volume range is about
a) 0-20 ml b) 400-600 ml
c) 100-200 ml d) 50-60 ml
- Q.7 FiO₂ range in ventilator lie between
a) 0-20% b) 21-100%
c) 50-100% d) None of above
- Q.8 Material used in prosthetics is
a) Wooden b) Plastics
c) Metals d) All of above
- Q.9 How many heart chambers does the heart have
a) 4 b) 2
c) 3 d) 6
- Q.10 Blue colour represents which of following gas in 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 Fibrillation
Q.12 Operation Theatre
Q.13 Expand ICCU.
Q.14 Telemetry
Q.15 Normal waveform pattern of ECG.
Q.16 Expand CPAP.
Q.17 Cardiac cycle.
Q.18 Ambu Bag.
Q.19 Expand ESU.
Q.20 CATH LAB.

SECTION-C

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

- Q.21 Write a note on Prosthetics & Orthotics.
Q.22 Explain Single Channel Telemetry system.
Q.23 Write a note on Critical care instrumentation.
Q.24 Write a short note role of Biomedical Engineer in Hospitals.