

G 6107



Reg. No.....

Name.....

**M.Sc. (BIO-MEDICAL INSTRUMENTATION) DEGREE
EXAMINATION, JUNE 2023**

Third Semester

BMI 301—BIOMEDICAL EQUIPMENTS—II

(2016 Admissions onwards — Regular/Supplementary/Mercy Chance)

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer any **five** of the following.*

Each question carries 10 marks.

1. What are the different modes of operation in a defibrillator ? Explain each one of them.
2. Explain different electrical hazards with the help of necessary circuits.
3. Explain the different parameters that can be preset in a ventilator.
4. Explain the TENS machine with suitable figure. What are its uses ?
5. What are the four stages of Anesthesia ?
6. Explain an implantable pacemaker. Explain its main components with the help of a block diagram.

(5 × 10 = 50)

Part B

*Answer any **ten** of the following.*

Each question carries 5 marks.

1. What is the principle of production of liquid oxygen ?
2. What is a C Arm used for ?
3. Explain with a suitable figure the basic blocks of a Programmable Pacemaker.
4. How does an ultrasonic Nebulizer work ?
5. Explain Microwave Diathermy.
6. Explain haemodialysis.

Turn over





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7. Explain ECMO with a suitable circuit.
8. Explain the working principle of a Defibrillator Analyzer.
9. What are the different applications of a cryogenics in medical field ?
10. What are the procedures involved in a Craniotomy ?
11. Distinguish between Micro and Macro shocks.
12. Explain microwave diathermy.

(10 × 5 = 50)

