

F 6236



Reg. No.....

Name.....

**M.Sc. (BIOMEDICAL INSTRUMENTATION) DEGREE EXAMINATION
SEPTEMBER 2023**

Second Semester

BIOMEDICAL EQUIPMENTS-I

(2016 Admission onwards-Regular/Supplementary/Mercy Chance)

Time : Three Hours

Maximum Marks : 100

Part A

*Answer any five questions.
Each question carries 10 marks.*

1. Explain with different types, the testing of any two biomedical equipment.
2. Discuss the Radio Immuno Assay and ELISA techniques.
3. Explain with figure the 12-lead systems of ECG measurement.
4. Discuss Magneto Encephalography (MEG) and Electrooculography (EOG) with their principles and applications.
5. Draw the block diagram of a bed-side monitor and explain compare and contrast with central station monitors.
6. Explain in detail any three types of audiometers. Compare them.

(5 × 10 = 50)

Part B

*Answer any ten questions.
Each question carries 5 marks.*

1. Explain the calibration of any two diagnostic devices.
2. Explain with principle and applications the liquid chromatograph.
3. Briefly explain flame photometers and spectrophotometers.
4. Discuss Vector Cardiography (VCG) with its principle and applications.
5. Discuss the artefact effects in EEG and ECG measurements.
6. Differentiate between endoscopy and laparoscopy.
7. Explain neonatal monitors with their uses.
8. Explain telestimulation with principles and applications.
9. Explain densitometers with principle and applications.
10. Write notes on hearing aids.

(10 × 5 = 50)

