

F 6276



Reg. No......

Name.....

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

Fourth Semester

MEDICAL INFORMATICS

(2021 Admissions—Regular/2016—2020 Admissions—Supplementary/Mercy Chance)

Time : Three Hours

Maximum Marks : 100

*Part A : Answer any **five** questions. Each question carries 10 marks.*

*Part B : Answer any **ten** questions. Each question carries 5 marks.*

Part A

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

1. Differentiate between Medical Informatics and Bioinformatics.
2. Explain the components and functionality of computerised patient recording.
3. Discuss with diagram the computer X-ray tomography with uses.
4. Discuss the application of artificial neural networks in computer assisted decision making.
5. Discuss the computer assisted patient education and health care information.
6. Explain any three databases in medical related applications.

(5 × 10 = 50 marks)

Part B

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

1. Briefly explain the security of databases.
2. Write notes on any two computer network topologies.
3. Briefly explain computer assisted surgery with its disadvantages.
4. Briefly explain virtual reality applications in medicine.
5. Briefly explain the use of computers in the care of critical patients.

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6. Briefly explain the application of expert system in medical decision making.
7. Explain the ultrasound imaging technique.
8. Write notes on radiation therapy with examples.
9. Briefly explain the development tools in computerised patient record.
10. Write notes on computerised prescription for patients.
11. Briefly explain the functional capabilities of a computerised hospital management and information system.
12. Write notes on the retrieval of computer based medical information.

(10 × 5 = 50 marks)

