

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 99B10

B.E./B.Tech. DEGREE EXAMINATION, APRIL / MAY 2025

Professional Elective

Biomedical Engineering

19UBM910-MEDICAL TECHNOLOGY

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

- | | |
|---|--------|
| 1. Define Assist devices. | CO1- U |
| 2. Summarize diagnostic equipment in brief. | CO1- U |
| 3. How is working cardiac care technology | CO1- U |
| 4. Illustrate usability testing of a medical device | CO1- U |
| 5. Explain the types of infant monitors | CO1- U |
| 6. Interpret the safety and regulatory considerations of healthcare devices | CO1- U |
| 7. Explain data security and privacy in home care devices. | CO1- U |
| 8. Explain home medicare and management. | CO1- U |
| 9. Explain AR in brief | CO1- U |
| 10. Summarize personalized ambient monitoring | CO1- U |

PART – B (5 x 16= 80 Marks)

- | | | |
|---|--------|------|
| 11. (a) Analyze the need for quality control in health care technology | CO1- U | (16) |
| Or | | |
| (b) Analyze the ethics and code of conduct that are necessary in the field of healthcare technology | CO1- U | (16) |
| | | |
| 12. (a) Explain clinical laboratory in detail | CO1- U | (16) |
| Or | | |
| (b) Explain cardiac care technology | CO1- U | (16) |

- | | | | | |
|-----|-----|--|--------|------|
| 13. | (a) | Analyze the need and importance of monitoring and diagnostic devices to diagnose and manage medical conditions. | CO1- U | (16) |
| | | Or | | |
| | (b) | Analyze various techniques involving the use of activity monitors to improve health outcomes in different populations. | CO1- U | (16) |
| 14. | (a) | Analyze the potential barriers and challenges seniors may face when using video communication for care delivery | CO1- U | (16) |
| | | Or | | |
| | (b) | Analyze the necessity and importance of Home Medicare management in healthcare technology. | CO1- U | (16) |
| 15. | (a) | Explain the concept of "markerless" AR and its significance in healthcare applications | CO1- U | (16) |
| | | Or | | |
| | (b) | Explain the concept of telemedicine and its role in VR applications for remote healthcare consultations | CO1- U | (16) |