Reg. No. :

Question Paper Code: 99B10

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

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.	Recall the diagnostic equipment in brief.	CO1- U
2.	Illustrate Telemedicine	CO1- U
3.	Summarize invitro diagnosis in brief	CO1- U
4.	Classify various human factors and ergonomics in health care technololgy.	CO1- U
5.	Explain the need for education and training while using a medical device	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)	Explain the role of medical imaging technology in radiology and its impact on patient care	CO1- U	(16)
		Or		
	(b)	Explain the importance of proper waste segregation before disposal?	CO1- U	(16)

12. (a) Analyze the societal and healthcare implications of the Industrial Revolution on the production and use of medical devices   CO1- U   (16)

Or

   (b) Analyze the need and importance of operation theatre in health 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) Analyze the potential challenges and obstacles that individuals may face when seeking mental health support within their home   CO1- U   (16)

Or

   (b) Analyze the potential limitations and challenges of implementing VR in medical education and training   CO1- U   (16)

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