Reg. No.:										

Question Paper Code:92B05

B.E./ B.Tech. DEGREE EXAMINATION, NOV 2023

Second Semester

Biomedical Engineering

19UBM205–INTRODUCTION TO BIOMEDICAL ENGINEERING

(Regulation2019)

Duration: Three hours Maximum:100Marks

Answer ALL Questions

PARTA-(10 x2=20Marks)

1.	Give any two benefits of joining the professional societies.	CO1-U
2.	How the modern medical sciences differ from primitive science?	CO3-An
3.	Define Action potential and Resting potential.	CO1-U
4.	Draw the block diagram of Basic Biomedical Instrumentation System.	CO1-U
5.	What are the elements of the consent form in clinical trials?	CO1-U
6.	What are the differences between Standards and Regulations?	CO1-U
7.	List out the types of medical imaging equipments.	CO1-U
8.	How can future rehabilitation engineering research improve the quality of life for individuals?	CO3-An
9.	List out the Benefits of IoT in Healthcare.	CO1-U
10.	What are the potential uses of stem cell?	CO1-U

PART– B(5X 16= 80Marks)

11.	(a)	What is your view regarding the role biomedical engineers will play in the health care system of tomorrow?	CO3-Ana	(16)
		Or		
	(b)	How the engineering helps the development of modern medicine? Discuss in detail in your view.	CO3-Ana	(16)

12. (a)	Briefly discuss the communication systems in the body and its connection to biomedical engineering.	CO1-U	(16)
	Or		
(b)	Briefly discuss the characteristics of human anatomy and physiology that relate to medical devices.	CO1-U	(16)
13. (a)	Briefly discuss the role of clinical engineers in the twenty first century.	CO1-U	(16)
	Or		
(b)	Write a brief note on good clinical practice and standards & trials in clinical research.	CO1-U	(16)
14. (a)	Discuss the overview of (i) Bio-fabrication and Bio-manufacturing. (ii) Bio molecular science and engineering.	CO1-U	(16)
	Or		
(b)	Give short notes on (i) Systems biology. (ii) Tissue engineering.	CO1-U	(16)
15. (a)	What do you understand by virtual reality? Describe a real world application of VR technology in bio-medical field.	CO2-App	(16)
	Or		
(b)	Briefly discuss the IoT applications in bio-medical field. Also find the IoT devices available in the healthcare world.	CO2-App	(16)