	SUB.CODE: 20PBC2E2B									
REG.NO:					6					



DHANALAKSHMI SRINIVASAN COLLEGE OF ARTS & SCIENCE FOR WOMEN (AUTONOMOUS)



(For Candidates admitted from 2020-2021 onwards)

PG DEGREE EXAMINATIONS APRIL - 2021

M.Sc., - BIOCHEMISTRY

BIOMEDICAL INSTRUMENTATION

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100	Im	0.		Hrs
				1112

Max.Marks: 75

PART - A

HOOSE THE CORRECT	Γ ANSWER				(10X1=10)
Electroencephalogram (E	EG) is used in	the diag	nosis of the:		(19111 10)
a) Heart	b) Tumour		c) Neuromuscular disease	es	d) Brain
The following are method	ds of blood flov				
				easurem	ent
c) Ultrasonic blood flow	measurement				
Which of the following is	used in electro				
a) Electron beams			b) Magnetic fields		
c) Light waves			d) Electron beams and ma	agnetic f	ields
Negative Staining is used	for examining				
a) Virus particles			in molecules		
c) Bacterial flagella		d) virus	particles, protein molecu	les and b	pacterial flagella
In liquid scintillation cour	nter, which of t				B
a) Solvent	b) Solute		c) Crystal		d) Reagent
What does "MRI" stand f	or?				
a) Medical Radiometry In	strument		b) Magnetic Resor	nance Im	naging
MA 1 1 D 11 1 T					
Pure-tone audiometers us	ually generate t	test tone			
a) 125 to 800 Hz					_
c) 25 to 8000 Hz			d) 15 to 800 Hz		
What does haemodialysis	removes other	than har	mful wastes?		
a) Protein	b) Salt		c) Insulin		d) Glycogen
What is the name of the g	roup of muscle	s at the	FRONT of your thigh?		, - , <u>-</u>
a) Quardriceps	b) Hamstrings		c) Calves		d) Pectprals
	Electroencephalogram (Ea) Heart The following are method a) Magnetic blood flow c) Ultrasonic blood flow Which of the following is a) Electron beams c) Light waves Negative Staining is used a) Virus particles c) Bacterial flagella In liquid scintillation cour a) Solvent What does "MRI" stand for a) Medical Radiometry In c) Maximal Radiology Im Pure-tone audiometers us a) 125 to 800 Hz c) 25 to 8000 Hz What does haemodialysis a) Protein What is the name of the general services and the services are services and the services and the services are services are services and the services are services are services are services and the services are services are services and the services are ser	a) Heart b) Tumour The following are methods of blood flow a) Magnetic blood flow measurement c) Ultrasonic blood flow measurement Which of the following is used in electro a) Electron beams c) Light waves Negative Staining is used for examining a) Virus particles c) Bacterial flagella In liquid scintillation counter, which of t a) Solvent b) Solute What does "MRI" stand for? a) Medical Radiometry Instrument c) Maximal Radiology Imaging Pure-tone audiometers usually generate t a) 125 to 800 Hz c) 25 to 8000 Hz What does haemodialysis removes other a) Protein b) Salt What is the name of the group of muscle	Electroencephalogram (EEG) is used in the diagral a) Heart b) Tumour The following are methods of blood flow measurement a) Magnetic blood flow measurement c) Ultrasonic blood flow measurement Which of the following is used in electron microal Electron beams c) Light waves Negative Staining is used for examining a) Virus particles b) protection by protection by Solute In liquid scintillation counter, which of the followal Solvent b) Solute What does "MRI" stand for? a) Medical Radiometry Instrument c) Maximal Radiology Imaging Pure-tone audiometers usually generate test tones al 125 to 800 Hz c) 25 to 8000 Hz What does haemodialysis removes other than har al Protein b) Salt What is the name of the group of muscles at the Instrument of the group of the gr	Electroencephalogram (EEG) is used in the diagnosis of the: a) Heart b) Tumour c) Neuromuscular disease. The following are methods of blood flow measurement, except? a) Magnetic blood flow measurement b) Coriolis blood flow measurement c) Ultrasonic blood flow measurement d) Radiographic blood flow Mhich of the following is used in electron microscope? a) Electron beams b) Magnetic fields c) Light waves d) Electron beams and many Negative Staining is used for examining a) Virus particles b) protein molecules c) Bacterial flagella d) virus particles, protein molecules c) Bacterial flagella d) virus particles, protein molecules nliquid scintillation counter, which of the following is a fluorescent substant Solvent b) Solute c) Crystal What does "MRI" stand for? a) Medical Radiometry Instrument b) Magnetic Resonant C)Maximal Radiology Imaging d) Magneto-Ray II b) 125 to 8000 Hz b) 125 to 8000 Hz d) 15 to 8000 Hz d) Protein b) Salt c) Insulin What is the name of the group of muscles at the FRONT of your thigh?	Electroencephalogram (EEG) is used in the diagnosis of the: a) Heart b) Tumour c) Neuromuscular diseases The following are methods of blood flow measurement, except? a) Magnetic blood flow measurement b) Coriolis blood flow measurement c) Ultrasonic blood flow measurement d) Radiographic blood flow meas Which of the following is used in electron microscope? a) Electron beams b) Magnetic fields c) Light waves d) Electron beams and magnetic fields c) Light waves d) Electron beams and magnetic fields c) Light waves d) Electron beams and magnetic fields c) Bacterial flagella d) virus particles, protein molecules and to liquid scintillation counter, which of the following is a fluorescent substance? a) Solvent b) Solute c) Crystal What does "MRI" stand for? a) Medical Radiometry Instrument b) Magnetic Resonance Im c)Maximal Radiology Imaging d) Magneto-Ray Idometry Pure-tone audiometers usually generate test tones in octave steps from a) 125 to 800 Hz b) 125 to 8000 Hz c) 25 to 8000 Hz C) 25 to 8000 Hz C) 25 to 8000 Hz C) Insulin What is the name of the group of muscles at the FRONT of your thigh?

10. Which of these is NOT a piece of physio equipment? a) Gym/Swiss ball b) Medicine ball c) Stability disc d) Kettle PART-B ANSWER ALL THE QUESTIONS (5X7=35)11. a) Explain in detail principle and working of NMR. (OR) b) Explain the description of an Electroencephalograph. 12. a) Elaborate on Phase-Contrast microscopy. (OR) b) Explain in detail about the Spirometry. 13. a) Write short note on principle, advantages and disadvantage of GM counter. (OR) b) How to detect Radiation? Explain any one types of detector. 14. a) Write notes on audiometers describing all aspects. (OR) b) What is a Pulse sensor? Write short note on Pulse sensor. 15. a) Briefly explain the Electro diagnostic apparatus. (OR) b) Elaborate on principle and application of short-wave diathermy. **PART-C** ANSWER ANY THREE QUESTIONS (3X10=30)16. Explain different electrodes used in ECG. 17. Explain about different fixation and staining techniques for EM 18. Elaborate on Echocardiogram. 19. Explain the principle of haemodialysis and various types of haemo dialysers. 20. Describe in detail about pain relief through electrical stimulation.