	SUB.CODE: 18UFS4C8									
REG.NO:										15
				10.00			51/13	8	V 200	



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



(For Candidates admitted from 2019-2020 onwards)

UG DEGREE EXAMINATIONS APRIL - 2021

B.Sc., - FORENSIC SCIENCE

INSTRUMENTATION

	Time: 3 Hrs			Max.Marks: 75				
		PART	' - A					
CH	OOSE THE CORRE	CT ANSWER		(10X1=10)				
1.	Emission without a ch	ange in spine multiplicity is.						
	a) Phosphorescence		b) Fluorescence					
	c) Spin forbidden		d) Intersystem cro	ssing				
2.	Differential Centrifuga	ation is based on the differen	ces inof biolog	rical particles.				
	a) Size	b) Sedimentation rate	c) Weight	d) Mass				
3.	On a Compound Micr	erent objective lenses, what is						
	the part called?							
	a) Eyepiece	b) Nosepiece	c) Focus Knob	d) Stage				
4.								
	a) Electrons	b) Specimens	c) Power	d) Occular System				
5.	What is the waveleng	th range of UV spectrum of I	Light?					
	a) 400nm-700nm	b) 700nm – 1mm	c) 0.01nm-10nm	d) 10nm-400nm				
6.	. Which of the following main component of mass spectroscopy deal with resolving the ions into							
	characteristics mass components according to their mass-to-charge ratio?							
	a) Ion Source		b) Analyzer					
	c) Detector System		d) Analyzer Tube					
7.	In which type of chro	matography, the stationary pl	hase held in a narrow to	ube and the mobile phase is				
	forced through it unde	er pressure?						
	a) Column Chromato	graphy	b) Planar Chroma	b) Planar Chromatography				
	c) Liquid Chromatog	raphy	d) Gas Chromatography					
8.	Which of the following type of Chromatography involves the separation of substances in a mixture over							
	a 0.2mm thick layer of	of absorbent?						
	a) Gas Liquid	b) Column	c) Thin Laver	d) Paper				

9. For the separation of DNA by electrophoresis, which of the following method is commonly used? a)Agarose-vertical b) Agarose-Horizontal c) PAGE-Vertical d) PAGE-Horizontal 10. Electrophoresis is not used for the separation of... a) Nucleic acid b) Proteins c) Amino acid d) Lipids PART - B ANSWER ALL THE QUESTIONS (5X7=35)11. a) Write a note on range of electro-magnetic radiation (OR) b) Explain the significance of instrumentation in forensic science 12. a) Briefly explain the forensic application of Stereo microscope (OR) b) Write a short note on Polarised light microscope 13. a) Write a short note on Beer-Lambert's Law. (OR) b) Explain the principle and working of Mass spectroscopy with ray diagram. 14. a) Explain the principle and application of TLC. (OR) b) Write a note on LCMS 15. a) Note the Forensic application of genetic analyzer (OR) b) Write a short note on working of Autoclave PART - C ANSWER ANY THREE QUESTIONS (3X10=30)16. Explain in detail about the principles, types and forensic application of Centrifuge. 17. Describe the principle, parts, working, and application of comparison microscope with ray diagram 18. Discus in detail about the UV-Visible Spectroscopy and IR-Spectroscopy 19. Write short notes on a. TLC b. HPLC c. GC-MS d. LCMS e. Paper Chromatography

20. Explain in detail about the principles, types and application of electrophoresis. Also discuss the factors

affecting electrophoresis.