19)P3	316	(Pages: 1)	Name	
	,	THIRD SEMESTER M.Sc. DE	CGREE EXAMINA (CBCSS-PG)	Reg. No TION, NOVEMBER 2020	
CC19P ZO3 C09 - MICROBIOLOGY AND BIOTECHNOLOGY					
			(Zoology)		
			Admission Regular		
Tiı	me:	: Three Hours		Maximum: 30 Weightage	
I.	Attempt any four questions.				
	1.	Bergey's Manual.			
	2.	Mechanism of gram staining.			
	3.	Gene libraries.			
	4.	4. Differentiate between homolactic and heterotactic fermentation.			
	5.	Restriction enzymes.			
	6.	Antisense technology.			
	7.	Green biotechnology.			
				$(4 \times 2 = 8 \text{ Weightage})$	
II.	Att	ttempt any <i>four</i> questions.			
	8.	IPR and patenting of biological	materials.		
	9.	Write notes on microbial biorer	nediation.		
	10. Methods of transgenesis.				
	11.	. Explain DNA sequencing method	ods.		
	12.	2. Describe pure culture preparation	on of microorganism	S.	
	13.	3. Briefly describe the different va	riants of basic PCR.		
	14.	4. Write an account on microbial of	drug resistance.		
				$(4 \times 3 = 12 \text{ Weightage})$	
Ш	. Atı	ttempt any <i>two</i> questions.			
	15.	5. Utilisation of energy by bacteria	al cells.		
	16.	6. Explain human diseases caused	by bacteria.		

- 17. Discuss the role of biotechnology in human health care.
- 18. Explain nucleic acid blotting techniques. Add a note on their importance.

 $(2 \times 5 = 10 \text{ Weightage})$