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GIET UNIVERSITY, GUNUPUR – 765022
M. Sc. (First Semester) Examinations, March – 2023
22BTPC104 - Microbiology
(Biotechnology)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART – A**(2 x 10 = 20 Marks)****Q.1. Answer all questions**

	CO #	Blooms Level
a. What is a photoautotrophic bacteria?	CO1	1
b. Write four antibiotic producing microbes?	CO2	1
c. What is heterocyst?	CO1	1
d. What are the uses of propionic acid bacteria?	CO3	2
e. Write on pigmentation of cyanobacteria?	CO1	2
f. Define saprotrophism?	CO2	1
g. What do you mean by psychrophilic bacteria?	CO2	2
h. What are the method of sterilization in microbiology?	CO3	3
i. Define RNA virus?	CO4	2
j. What are importance of prebiotics?	CO4	1

PART – B**(10 x 5 = 50 Marks)**Answer ANY FIVE questions

	Marks	CO	Blooms Level
2. a. Give an account of nutritional types of bacteria?	5	CO1	1
b. Explain on types of microbial culture media?	5	CO1	2
3.a. Describe on genetic recombination of bacteria?	5	CO1	3
b. Give an account of types of plasmids found in bacteria?	5	CO1	1
4. a. Write notes on Cyanobacteria?	5	CO1	2
b. Explain sporogenesis in bacteria?	5	CO1	2
5.a. Write on staining and pathogenies of mycobacteria?	5	CO1	2
b. Illustrate the sterilization techniques used in microbiology?	5	CO1	3
6. a. Explain on biological control of microorganisms?	5	CO1	3
b. Write on structure and biological importance of prions?	5	CO1	2
7.a. Draw and describe the bacteriophage structure?	5	CO1	1
b. Explain on viral replication?	5	CO1	2
8. a. Give an account of host-pathogen interaction?	5	CO1	1
b. Explain nitrogen cycles?	5	CO1	2

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