QP Code: RN23BTECH055 | Reg. No | | | | | | | | | | | AY 23

GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, ODISHA, GUNUPUR
(GIET UNIVERSITY)

B. Tech (Third Semester - Regular) Examinations, November – 2024

23BBTPC23003 - Microbiology

(Biotechnology)

Time: 3 hrs | Maximum: 60 Marks

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions

		CO #	Blooms Level
a.	State about transposons with examples?	CO1	K2
b.	Express about induced mutation with examples?	CO3	K3
c.	Differentiate between naked virus and enveloped virus?	CO1	K2
d.	Define symbiotic nitrogen fixation? Name two symbiotic nitrogen fixing bacteria?	CO2	K2
e.	Define extremophiles? Give examples?	CO5	K2

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions

		Marks	CO #	Blooms Level
2. a.	Explain the structure of bacterial cell with the aid of a neatly labelled diagram?	5	CO1	K3
b.	Write notes on microbial growth with factors affecting growth?	5	CO2	K2
	(OR)			
c.	What is food poisoning? Discuss the mycotoxins and bacterial toxins in food & their impact on human health?	5	CO3	K2
d.	Explain about the role of microbes in human welfare?	5	CO1	K3
3.a.	Illustrate about the differential staining technique for microscopic identification of microorganisms?	5	CO2	K3
b.	Classify culture media with suitable examples of each?	5	CO2	K3
	(OR)			
c.	Enumerate the methods of food preservation?	5	CO3	K3
d.	Discuss about pure culture techniques with its importance?	5	CO2	K3
4.a.	Describe the life cycle, laboratory diagnosis and treatment of filaria infection?	5	CO4	K3
b.	Write notes on Ame's test for mutagenesis?	5	CO3	K2
	(OR)			
c.	Discuss about the general properties of fungi?	5	CO1	K3
d.	Illustrate about the conjugation process in bacteria?	5	CO3	K3
5.a.	Explain about the antibiotics and its mode of action?	5	CO4	K3
b.	Write notes on bacteriological analysis of water?	5	CO5	K2
	(OR)			
c.	Describe the basic concepts of disease causing by microbes?	5	CO4	K3
d.	Explain the significance of recombinant r-DNA technology in microbiology?	5	CO3	K3
6.a.	Write notes on host-parasite relationship?	5	CO2	K2
b.	Enlist about the types of microbes associated with food spoilage?	5	CO3	K3
	(OR)			
c.	Discuss about the microbiology of soil?	5	CO5	K3
d.	Define sterilization? Classify various methods of sterilization with suitable examples?	5	CO2	K3

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