

**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur**  
(GIET University)



B. Tech (Sixth Semester – Regular/ Supplementary) Examinations, April 2025

**21BBTPE36011/22BBTPE36011 –Environmental Biotechnology**

(Biotechnology)

Time: 3 hrs

Maximum: 70 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. Name the microorganisms widely used in sewage treatment.	CO1	K1
b. Write application of biocatalyst.	CO3	K2
c. Define bioaugmentation.	CO2	K1
d. Differentiate between bioabsorption and bioadsorption.	CO1	K2
e. Define biopolymer with examples.	CO4	K1

**PART – B**

**(15 x 4 = 60 Marks)**

Answer **all** the questions

	Marks	CO #	Blooms Level
2. a. Explain about the principle and application of biosensor.	8	CO1	K3
b. Discuss about the source, effect and control of air pollution.	7	CO1	K2
(OR)			
c. Illustrate about the role of biofertilizer with its application.	8	CO4	K3
d. Describe the steps involved in bioprospecting with challenges.	7	CO1	K2
3.a. Discuss about bioethanol production with its application.	8	CO4	K2
b. Why clean technology is needed? Write about organic farming.	7	CO4	K2
(OR)			
c. Write about the microbial enhanced oil recovery with its application.	8	CO4	K2
d. Discuss about the role of genetically engineered organisms on waste water treatment.	7	CO1	K2
4.a. Discuss the role of composting technology in sustainable agriculture and environmental protection.	8	CO4	K2
b. Write about the desulfurization of coal process.	7	CO4	K2
(OR)			
c. Illustrate about the role of microbial leaching in metal recovery from the solution.	8	CO3	K3
d. Explain about the concept of bioplastic production with its application.	7	CO3	K3
5.a. Describe the mechanism of action of catalytic antibodies and how they can be applied in pollutant degradation.	8	CO3	K2
b. Write notes on the role of biomarker in environmental monitoring system.	7	CO1	K2
(OR)			
c. Describe the process of developing a biopesticide with its importance.	8	CO4	K2
d. Write a note on bioethics in environmental biotechnology.	7	CO4	K2

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