QP Code:R262G023 Reg. No | | | | | | | | | | | AY 25

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

M.Sc. (Second Semester - Regular) Examinations, May – 2026

24MBIPC12006 – Research Methodology and Scientific Communication Skills

(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. What do you mean by a manipulative experiment?	CO1	K1
b. What is novelty in research?	CO2	K2
c. Define a communication breakdown.	CO4	K3
d. What is an abstract?	CO3	K2
e. Write on the hidden web.	CO5	K3

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions.	Marks	CO #	Blooms Level
2. a. Explain the concept of empirical science and discuss how it differs from theoretical science.	5	CO1	K2
b. Describe the scientific method in detail?	5	CO2	K1
(OR)			
c. Explain the concepts of reductionist and holistic biology?	5	CO2	K3
d. What is descriptive science? Discuss its importance in the biological sciences.	5	CO1	K1
3. a. Discuss the key factors involved in selecting a suitable research mentor.	5	CO3	K4
b. Evaluate the importance of mentor expertise and lab environment in research success.	5	CO2	K1
(OR)			
c. Explain how the mentor–mentee relationship influences scientific productivity?	5	CO4	K3
d. Describe the standard format and best practices for maintaining a lab notebook	5	CO3	K2
4. a. Explain the concept of effective communication and discuss the importance of setting clear goals.	5	CO6	K3
b. Describe the process of initiating and maintaining effective communication.	5	CO5	K2
(OR)			
c. Discuss how value can be created in professional conversations.	5	CO3	K2
d. Deliberate the role of body language and facial expressions in communication.	5	CO2	K3
5. a. Discuss the principles of effective formal presentation skills.	5	CO4	K2
b. Explain the principles and importance of technical writing in scientific research.	5	CO6	K1
(OR)			
c. Discuss the design and presentation of a scientific poster.	5	CO3	K4
d. Describe in detail the structure of a scientific paper.	5	CO2	K3
6. a. Discuss strategies for drafting effective titles and writing concise abstracts.	5	CO1	K2
b. Explain the concept and types of plagiarism.	5	CO3	K1
(OR)			
c. Discuss the role and types of peer review in scientific publishing.	5	CO4	K3
d. Explain the importance of ethical practices in scientific research and publication.	5	CO3	K2

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