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## School of Biological and Life sciences Master of Science in Biochemistry

Mid Term Examination - May 2024

**Duration: 90 Minutes** Max Marks: 50

## Sem II - P1PP205B - Microbiology

**General Instructions** Answer to the specific question asked Draw neat, labelled diagrams wherever necessary Approved data hand books are allowed subject to verification by the Invigilator

1)	Discuss the structural differences between DNA and RNA molecules, and highlight their respective functions within the cell.	K2 (2)
2)	What is the importance of nitrogen source and carbon source in media.	K1 (3)
3)	Discuss the contributions of Edward Jenner and Louis Pasteur in the microbiology area.	K2 (4)
4)	Discuss the importance of microbiology in various areas.	K2 (6)
5)	Differentiate between Obligate anaerobes and Facultative anaerobes.	K3 (6)
6)	Discuss the process of bacterial transformation, including the uptake of naked DNA from the environment and its integration into the recipient bacterial genome.	K3 (9)
7)	Explain the three domain classifications with example and write note on prions.	K4 (8)
8)	What are the nutrients which are required for proper growth of microbes and explain any one technique for obtaining pure culture?	K4 (12)
	OR	
	Demonstrate the following with suitable example (i) Scope of microbiology in Industrial field (ii) various classes of Algae (iii) Dinoflagellates (iv) Germ theory of diseases	K4 (12)