

## MSc Sem.-3 Examination

501

Microbiology

May 2022

Time : 2-00 Hours]

[Max. Marks : 50

Instructions: All questions in Section I carry equal marks  
Attempt any THREE questions in Section I  
Question IX in Section II is compulsory

## Section I (42 marks)

Q I	(a) What are Starter Cultures. What are their essential characteristics?	7
	(b) Write a detailed note on Fermented Dairy Products.	7
Q II	(a) Give an overview of Probiotics and their properties.	7
	(b) Write the steps involved in Cheese Production.	7
Q III	(a) What is Single Cell oil. Write a note on its production.	7
	(b) Give details of Button Mushroom cultivation.	7
Q IV	(a) Write a note on Carotenoid pigments.	7
	(b) Write a short note use of algal biomass with advantages.	7
Q V	(a) Write a note on types of biofertilizers with examples.	7
	(b) Give the application mycorrhizal fungi.	7
Q VI	(a) Explain the role of earthworms in the process of vermicomposting.	7
	(b) Explain the features Integrated Pest Management.	7
Q VII	(a) What are Microbial Plant Hormones. explain the role of IAA.	7
	(b) Write a note on Organic Matter Decomposition.	7
Q VIII	(a) Discuss applications of Plant Tissue Culture.	7
	(b) Write a note on Transgenic Crops.	7

## Section II (8 marks)

Q IX	Short Questions (One mark each)	
	1. What are Nutraceuticals	1
	2. Homofermentative LAB	1
	3. What is Bakers Yeast	1
	4. Name two Microalgae	1
	5. Enlist two bioinsecticides	1
	6. Name two phosphate solubilizing bacteria	1
	7. Name one commercially available transgenic plant.	1
	8. What is Humus	1