.) – Microbiology – Major/Minor courses (w.e.f. 2023-24 Academic Year)

S.No.	Type of Questions	No. of questions to be given			No. of questions to be answered		
		in the Question paper			by the learner		
		No.	Marks allocated per question	Total marks	No.	Marks allocated per question	Total marks
			PART-1				
1	SECTION - A			- 80	At	10	
	Long Answer Questions	04	10		least		
	(LAQ)				01		
2	SECTION - B		10		At		30
	Long Answer Questions	04			least		
	(LAQ)				01		
		•	PART-2				
3	Short Answer Questions (SAQ)	05	04	20	03	04	12
4	Very Short Answer Questions (VSAQ)	05	02	10	04	02	08
Total questions & Total marks =		16	-	110	08	-	50

Major I INTRODUCTION TO CLASSICAL BIOLOGY

TIME: 2 1/2 HOURS Maximum Marks: 50

PART-1

Section- A

Answer any THREE attempting at least one from each section 3×10=30 Marks

- **1.** Essay question from unit I.
- 2. Essay question from unit I
- 3. Essay question from unit II
- 4. Essay question from unit II

Section-B

- 5. Essay question from unit III
- 6. Essay question from unit III
- 7. Essay question from unit IV
- 8. Essay question from unit V

PART -2 SHORT ANSWER QUESTIONS

Answer any THREE questions only

3×4=12 Marks

- 9. Short question from unit I
- 10. Short question from unit II
- 11. Short question from unit III
- 12. Short question from unit IV
- 13. Short question from unit V

VERY SHORT ANSWER QUESTIONS Answer any FOUR questions only 4×2=08 Marks

- 14. Very Short question from unit I
- 15. Very Short question from unit II
- 16. Very Short question from unit III
- 17. Very Short question from unit IV
- 18. Very Short question from unit V

Major I INTRODUCTION TO CLASSICAL BIOLOGY Model Question Paper (Theory)

TIME: 2 1/2 HOURS Maximum Marks: 50

PART -1

Section- A

Answer any **THREE** attempting at least one from each section

3×10=30 Marks

- 1. Write a note on Definition and concept of Taxonomy.
- 2. Explain the Concept of ecosystem, Biodiversity and conservation.
- 3. Explain the classification of plant kingdom.
- 4. Write a note on Mushroom cultivation.

Section-B

- 5. Write a note on the classification of Kingdom Animalia and Chordata.
- 6. Explain the economic importance of Sericulture, Apiculture and Aquaculture.
- 7. Explain the Ultrastructure of prokaryotic and eukaryotic cell.
- 8. Explain scope of chemistry and applications of chemistry in daily life.

PART -2 SHORT ANSWER QUESTIONS

Answer any **THREE** questions only

 $3\times4=12$ Marks

- 9. Binomial and trinomial nomenclature.
- 10. Phytohormones
- 11. Gametogenesis
- 12. Concept of gene
- 13. Green chemistry

VERY SHORT ANSWER QUESTIONS

Answer any **FOUR** questions only

4×2=08 Marks

- 14. Pollution
- 15. Floriculture
- 16. Hormones & disorders
- 17. Origin of life
- 18. Chemical bonds

Major II INTRODUCTION TO APPLIED BIOLOGY

TIME: 2 1/2 HOURS Maximum Marks: 50

PART -1 Section- A

Answer any THREE attempting at least one from each section Marks

 $3 \times 10 = 30$

- 1. Write a note on History and Major Milestones of Microbiology.
- 2. Explain immunity and types of immunity.
- 3. Describe the structure and function of Carbohydrates.
- 4. Write a note on Basics of Metabolism.

Section-B

- 5. Explain History, scope, and significance of biotechnology.
- 6. Write a note on Genetic engineering.
- 7. Write a note on Monoclonal antibodies.
- 8. Explain Probability and tests of significance.

PART -2 SHORT ANSWER QUESTIONS Answer any THREE questions only 3×4=12 Marks

- 9. Louis Pasteur
- 10. Amino acids
- 11. Bioremediation
- 12. DNA fingerprinting
- 13. NCBI

VERY SHORT ANSWER QUESTIONS Answer any FOUR questions only 4×2=08 Marks

- 14. Bacteria
- 15. DNA and RNA
- 16. BT cotton
- 17. Eugenics
- 18. Gen Bank