SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

M.Sc.(Biotechnology) – I Year (I Sem)	
Course Name: Molecular Biology of the Cell	**Code: MSB1008**
Time: 02 Hours	**Max Marks: 60**

University Roll No.															
(To be filled by the Student)															

Note: Please read instructions carefully:

a) The question paper has 03 sections, and it is compulsory to attempt all sections.

b) All questions of Section A are compulsory; questions in Section B and C contain choice.

Section A: Very Short Answer type Questions **Attempt all the questions.**		**BL**	**CLO**	**Marks (10)**
1.	Distinguish between phagocytosis and pinocytosis.	BL4	CLO1	02
2.	What is the function of the glyoxylate cycle?	BL1	CLO2	02
3.	Why is tight junction important?	BL1	CLO1	02
4.	What is meiosis?	BL1	CLO3	02
5.	Tabulate the major differences between cilia and flagella.	BL1	CLO4	02
Section B: Short Answer Type Questions **Attempt any 03 out of 06 questions.**		**BL**	**CLO**	**Marks (30)**
1.	Describe active and passive transport between cells.	BL2	CLO1	10
2.	List the uncouplers involved in mitochondrial respiration and explain their mechanism of action.	BL1	CLO2	10
3.	Discuss the three-dimensional structure of cytoskeleton.	BL2	CLO3	10
4.	Elaborate the functional differences between prokaryotic and eukaryotic ribosomes.	BL6	CLO2	10
5.	Describe the cell organization of any filamentous fungus.	BL2	CLO4	10
6.	Determine the mode of biogenesis and various functions of peroxisomes in animal cells.	BL5	CLO2	10
Section C: Long Answer Type Questions/Case Study **Attempt any 01 out of 03 questions.**		**BL**	**CLO**	**Marks (20)**
1.	Illustrate the fluid mosaic model for cell membrane in eukaryotic cells.	BL4	CLO1	20
2.	Explain mitotic cell division and its significance.	BL5	CLO3	20
3.	Describe in detail the structure of eukaryotic chromosome.	BL2	CLO4	20
