

SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

B.Sc. (Hons) Biotechnology - I Year (I Sem)

Course Name: Biochemistry & Metabolism

Code: BSB1701

Time: 02 Hours

Max Marks: 60

University Roll No.

(To be filled by the Student)

Note: Please read instructions carefully:

- The question paper has 03 sections and it is compulsory to attempt all sections.
- 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.	What is non-reducing sugar? Give one example.	BL1	CLO1	02
2.	What is the full form of DNA? Write the complementary DNA strand of following sequence. 5'ACCGTGAG3'	BL1	CLO1	02
3.	How does pH and temperature influences enzyme activity?	BL1	CLO2	02
4.	Discuss the fate of pyruvate under aerobic and anaerobic conditions.	BL2	CLO3	02
5.	Define ureotelic and uricotelic animals.	BL1	CLO4	02
Section B: Short Answer Type Questions Attempt any 03 out of 06 questions.		BL	CLO	Marks (30)
1.	Elaborate the role of storage polysaccharides with two examples.	BL5	CLO1	10
2.	What are the different types of phospholipids? How phospholipids are different from triglycerides?	BL1	CLO1	10
3.	List the different characteristics of an enzyme.	BL1	CLO2	10
4.	Discuss the primary and secondary structure of protein.	BL2	CLO1	10
5.	Explain the mechanism of oxidative phosphorylation.	BL5	CLO3	10
6.	Describe urea cycle by suitable illustration.	BL2	CLO4	10
Section C: Long Answer Type Questions/Case Study Attempt any 01 out of 03 questions.		BL	CLO	Marks (20)
1.	What is the role of coenzyme in enzymatic reactions? Discuss the different types of coenzymes and their precursor molecule.	BL2	CLO2	20
2.	What are purines and pyrimidines? Discuss the different types of nucleosides and nucleotides found in nucleic acids.	BL2	CLO1	20
3.	Describe the citric acid cycle by suitable illustration and calculate the number of ATP molecules generated.	BL5	CLO3	20