DEPARTMENT OF Molecular Biology & Biotechnology
LESSION Plan
Session 2023-24
SEMESTER – I

Name of Teacher: Ms. Upasana Das

Paper Allotted: MBBCOR101T/MBBMIN101T

Month	Paper	Topic	No. of classes
August 2023 (08.08.2023)	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Unit 1: pH and Buffer: Ionization of water, Lowry Bronsted theory of acids and bases, pH and buffers, Henderson Hasselbalch Equation,	3
September 2023	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Biological buffers, Importance of buffers in living system. .	2
January 2024		Internal Examination & Class for Slow Learners	4
April 2024		END SEMESTER EXAMINATION	
Total Classes			9

Name of Teacher: **Smt. Paramita Ghosh**

Paper Allotted: MBBCOR101T/MBBMIN101T & MBBCOR101P/MBBMIN101P

Month	Paper	Topic	No. of classes
August 2023 (08.08.2023)	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Unit 2: Biomolecules: Carbohydrates: Open chain and ring structures (Haworth projection formula) of Monosaccharides: Hexoses and Pentoses (Ribose and 2-deoxyribose), D- and L- configuration, Mutarotation,	3
September 2023	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Anomers, and Epimers. Oxidation of sugars. Reducing and Non-reducing sugars, Disaccharides (sucrose, lactose, maltose),	6
October	MBBCOR1O1T/	Structure of homopolysaccharides (glycogen, starch and	6

2023	MBBMIN101T Biomolecules (Theory)	cellulose). Lipids: Classification of lipids, Nomenclature and structure of Saturated and Unsaturated Fatty acids, delta and omega-system; Essential fatty acids.	
		PUJA VACATION (19.10.2023 to 15.11.2023)	
November 2023	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Saponification number, Iodine number, Acetyl number of fats. Structure and Biological importance of triglycerides, phospholipids,	4
December 2023	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	glycolipids, and steroids (cholesterol). Examples of Lipids as signalling molecules, cofactors and pigments.	5
January 2024		Internal Examination & Class for Slow Learners	4
April 2024		END SEMESTER EXAMINATION	
Total Classes			28

NAME OF TEACHER: DR. INDRANI DATTA

PAPER ALLOTTED: MBBCOR101T/MBBMIN101T & MBBCOR101P/MBBMIN101P

Month	PAPER CODE	Topic	No. of classes
August 2023 (08.08.2023)	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Unit 2: Biomolecules: Amino acids and Proteins: General structure and classification of Amino Acids, Essential and non-essential amino acids, Zwitterionic structure,	3
	MBBCOR1O1P/ MBBMIN101P Biomolecules (Practical)	Preparation of phosphate buffer and measurement of pH. Qualitative tests for reducing and non-reducing sugars, polysaccharide, lipid, amino acids and proteins.	12
September 2023	MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)	Acid-Base properties, Titration of amino acids, pK values and Isoelectric point, Formol titration of glycine.	4
	MBBCOR1O1P/ MBBMIN101P Biomolecules (Practical)	Identification of unknown compounds (from sugars, polysaccharides, lipids, amino acids and proteins).	16

October 2023	**MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)**	**Reactions of carboxyl and amino groups, formation of Peptide bond, Determination of N-terminal amino acid (Edman's method) and C–terminal amino acid (hydrazinolysis).**	**3**
	MBBCOR1O1P/ MBBMIN101P Biomolecules (Practical)	**Simple staining of bacteria. Gram staining of bacteria.**	**12**
		PUJA VACATION (19.10.2023 to 15.11.2023)	
November 2023	**MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)**	**Structural organization of proteins (primary, secondary, tertiary & quaternary),**	**2**
	MBBCOR1O1P/ MBBMIN101P Biomolecules (Practical)	**Identification of unknown compounds (from sugars, polysaccharides, lipids, amino acids and proteins).**	**8**
December 2023	**MBBCOR1O1T/ MBBMIN101T Biomolecules (Theory)**	**Covalent and Non-covalent interactions that stabilize the three-dimensional structures of proteins. Fibrous and globular proteins, Native structure of Proteins, Denaturation.**	**3**
	MBBCOR1O1P/ MBBMIN101P Biomolecules (Practical)	**Formol titration of Glycine.**	**12**
January 2024		**Internal Examination & Class for Slow Learners**	**4**
April 2024		**END SEMESTER EXAMINATION**	
Total Classes			**79**