

ACADEMIC PLANNER & UNITIZATION OF SYLLABUS

Department of Zoology

Bankura Christian College

ACADEMIC YEAR 2023-24 (Semester 3rd Hons)

(July to December)

Name of the Faculty: Dr Anupam Ghosh

Hons:

Theory

C6

Unit 4: Muscular system

Histology of different types of muscle; Ultra structure of skeletal muscle; Molecular and chemical basis of muscle contraction; Characteristics of muscle fibre.

Unit 6: Endocrine System

Histology and function of pituitary, thyroid, pancreas and adrenal

C7

Unit 5: Enzymes

Nomenclature and classification; Cofactors; Specificity of enzyme action; Isozymes; Mechanism of enzyme action; Enzyme kinetics; Michaelis-Menten equation, Lineweaver-Burk plot; Factors affecting rate of enzyme-catalyzed reactions; Enzyme inhibition; Allosteric enzymes and their kinetics.

Practical

C5

Dissection of brain and pituitary of *Tilapia*

C6

3. Study of permanent slides of Mammalian skin, Cartilage, Bone, Spinal cord, Nerve cell, Pituitary, Pancreas, Testis, Ovary, Adrenal, Thyroid and Parathyroid.

C7

1. Qualitative tests of functional groups in carbohydrates (Benedict), proteins (Biuret) and lipids (Saponification).
4. Paper chromatography of amino acid.

MONTH/YEAR	WEEK	THEORY	Practical
August 2023	3	Histology of different types of muscle	Introduction about Histology
	4	Ultra structure of skeletal muscle	Study of permanent slides of Mammalian Pancreas, Testis
	5	Molecular and chemical basis of muscle contraction (continued)	Study of permanent slides of Mammalian Nerve cell. Mammalian Pituitary
MONTH/YEAR	WEEK	PORTIONS	
September 2023	1	Molecular and chemical basis of muscle contraction	Study of permanent slides of Mammalian skin, Cartilage
	2	Characteristics of muscle fibre	Study of permanent slides of Bone, Spinal cord
	3	Characteristics of muscle fibre	Study of permanent slides of Ovary, Adrenal
	4	Class Test on Muscle Contraction Evaluation of answer scripts and analysis	Histology and function of thyroid, Parathyroid.
	5	Nomenclature and classification of Enzyme, Isozymes	Revision
MONTH/YEAR	WEEK	PORTIONS	Qualitative tests of functional groups in carbohydrates (Benedict) Reducing sugar and non reducing sugar
October 2023	1	Mechanism of enzyme action, Enzyme kinetics	Qualitative tests of functional groups in proteins (Biuret)
	2	Michaelis-Menten equation, Lineweaver-Burk plot	Qualitative tests of functional groups in proteins (Biuret)
	3	Factors affecting rate of enzyme-catalyzed reactions, Enzyme inhibition	Qualitative tests of functional lipids (Saponification).

MONTH/YEAR	WEEK	PORTIONS	
November 2023	1	Allosteric enzymes and their kinetics	Paper chromatography of amino acid.
	2	Class test	Paper chromatography of amino acid.
	3	Histology and function of pituitary	Dissection of brain and pituitary of <i>Tilapia</i>
	4	Histology and function of Thyroid, Histology and function of Pancreas	Dissection of brain and pituitary of <i>Tilapia</i>
MONTH/YEAR	WEEK	PORTIONS	
December 2023	1	Histology and function of adrenal	Revision
	2	Class test	Revision
	3	Important question Analysis	Revision