ACADEMIC PLANNER & UNITIZATION OF SYLLABUS

Department of Zoology

Bankura Christian College

ACADEMICYEAR2023-24 **(Semester 5th)**

5thSemester (July to December)

Name: Dr. ChandranathChatterjee

Hons:

Theory

C-11

Unit 1: Overview of molecular Biology

Emergence, Historical growth of the discipline and scope

Unit 2: Nucleic Acids

Salient features of DNA and RNA Watson and Crick Model of DNA

Unit 9: Molecular Techniques

Basic concept of PCR, Western and Southern blot, Northern Blot

C-12

Unit 3: Mutations

Types of gene mutations (Classification), Types of chromosomal aberrations (Classification with one suitable example of each), Non-disjunction and variation in chromosome number; Molecular basis of mutations in relation to UV light and chemical mutagens

Practical

C-11

2. Preparation of polytene chromosome from Chironomus or Drosophila larva

MONTH/ YEAR	WEEK	Theory	Status	Practical	Status
August2023	5	Emergence, Historical growth of the discipline and scope	Completed	Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
MONTH/ YEAR	**WEEK**	**PORTIONS**		**PORTIONS**	
September 2023	1	Salient features of DNA and RNA Watson and Crick Model of DNA	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
	2	Salient features of DNA and RNA Watson and Crick Model of DNA	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
	3	Basic concept of PCR	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed

	4	Western and Southern blot, Northern Blot	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
	5	Class Test	Not Done	Laboratory Notebook Check	Completed
MONTH/ YEAR	**WEEK**	**PORTIONS**		**PORTIONS**	
October 2023	1	Types of gene mutations (Classification),	Completed	Laboratory Notebook Check	Completed
	2	Types of chromosomal aberrations (Classification with one suitable example of each)	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
MONTH/ YEAR	**WEEK**	**PORTIONS**		**PORTIONS**	
November 2023	1	Non-disjunction and variation in chromosome number;	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
	2	Molecular basis of mutations in relation to UV light and chemical mutagens	Completed	Practice of Preparation of polytene chromosome from Chironomus or Drosophila larva	Completed
	3	Molecular basis of mutations in relation to UV light and chemical mutagens	Completed	Practical Demo Test	Completed
	4	Question answer session	Completed	Practical Practice	Completed
	5	Doubt Clearing	Completed	Practical Practice	Completed
MONTH/ YEAR	**WEEK**	**PORTIONS**		**PORTIONS**	
December 2023	1	Questioning and Concept check	Completed	Practical Practice	Completed
	2	Full Class Test	Done	Practical Practice	Completed
	3	Result and Discussion	Done	Practical Practice	Completed