



ST. LAWRENCE HIGH SCHOOL
27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019
Session Plan/ Syllabus Coverage for the Academic Year 2026-2027



Subject: BIOLOGY

Term: First term

Name of the Subject Co-ordinator: Ms. Shaista Ahmed

No. Of Working Days:38

No. Of Periods Available: 43

Class: 12

Section: A

Name of the Book: NOOTAN ISC BIOLOGY- By Prof V.Singh,D.K. Jain and Ajay Kr Bhattacharya 23rd Edition 26-27) [Bk NIB =Abbreviation]

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
APRIL	17	<u>CHAPTER-1</u> SEXUAL REPRODUCTION IN FLOWERING PLANTS [Bk NIB Pgs 3-50] <u>CHAPTER-2</u> HUMAN REPRODUCTION [Bk NIB Pgs 51-98]	Structure and details of parts of flower, Pre fertilization – Structures and events, Double fertilization, Post fertilization–Events and structures; Apomixis Parthenocarpy, Polyembryony, Formation of fruit and seed, seed dispersal Male and female reproductive structures and Gametogenesis, Menstrual cycle Fertilization and Implantation, Pregnancy and Embryonic development, Parturition and Lactation.	Explanation of the topics was done. Notes on megasporogenesis, microsporogenesis, types of endosperms and flowchart of male and female gametophyte development was given. [Bk NIB Pgs 3-50] Explanation of the concepts were done and Flowcharts for Spermatogenesis and Oogenesis was done. Diagrams of human testis and ovaries were given . Notes were given on hormonal control of Parturition and Lactation. [Bk NIB Pgs 51-98]	Labelled drawings of Male and female gametophyte. Demonstration of development of male gametophyte using pollen grains of periwinkle. Chart on Menstrual cycle vs Oestrous cycle, Drawings of T.S of testis and ovaries. Permanent slides of TS of testis and ovaries
MAY	12	<u>CHAPTER-3</u> REPRODUCTIVE HEALTH [Bk NIB Pgs 99-124] <u>CHAPTER 06-</u> ORIGIN OF LIFE [Bk NIB pgs 261-276]	Reproductive health –Problems and Strategies, Population explosion, medical termination of Pregnancy, Infertility, Amniocentesis, Genetic Counselling and Sexually Transmitted Diseases. Universe and Origin of Solar system, Origin of life, Evolution. <u>TOPIC FOR BIOLOGY PROJECT GIVEN</u>	Explanation of the topics was done. Definitions of Infertility and MTP were given and causes were discussed. Notes given on Birth Control Measures. [Bk NIB Pgs 57-66] Explanation of Origin of Solar system and life. [Bk NIB pgs 261-276] <u>GUIDELINES AND DETAILS OF THE PROJECT WERE GIVEN TO THE STUDENTS TO BE DONE AS HOLIDAY HOMEWORK</u>	Drawings of Amniocentesis and symptoms of sexually transmitted diseases. Flowchart of Origin of life and Evolution
JUNE	14	<u>CHAPTER 07-</u> EVIDENCES AND THEORIES OF BIOLOGICAL EVOLUTION [Bk NIB pgs 277-331] <u>CHAPTER 08-</u> HUMAN EVOLUTION [Bk NIB pgs 333-344]	Evidences of Evolution Theories and Mechanism of Evolution, Theories of Natural selection, Causes of Variations, Artificial versus Natural selection, Convergent and Divergent Evolution Place of man in Animal Kingdom, Evolution of Man.	Explanation and discussion on: Evidences of Evolution, Adaptive radiation, Mechanism of Evolution- Hardy Weinberg Principle, Founders effect and Bottleneck effect. [Bk NIB pgs 277-331] Explanation of Evolution of man and his ancestors [Bk NIB pgs 333-344]	Chart of Geological time scale and drawings showing Founders effect, Hardy Weinberg's Principle. Chart of Evolution of man.

Teachers are requested to prepare a LESSON PLAN for each Topic to be taught. The Lesson plans are to be submitted along with the monthly planner.

Signature of the Teacher: 1.

PRINCIPAL:

Submitted on: 20.04.2026

Academic Co-ordinator:

VICE PRINCIPAL:



ST. LAWRENCE HIGH SCHOOL
 27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019
 Session Plan/ Syllabus Coverage for the Academic Year 2026-2027



Subject: BIOLOGY

Term: First term and Rehearsal Exam

Name of the Subject Co-ordinator: Ms. Shaista Ahmed

No. Of Working Days: 38,49 (1st term) +8 (Rehearsal)

No. Of Periods Available: :58 - 51(1st term) +07 (Rehearsal)

Class: 12

Section: A

Name of the Book: NOOTAN ISC BIOLOGY- By Prof V.Singh,D.K. Jain and Ajay Kr Bhattacharya 23rd Edition 26-27) [Bk NIB =Abbreviation]

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
JULY	24 <i>Unit test for First term from 13.07.26</i>	CHAPTER -4 PRINCIPLES OF INHERITANCE AND VARIATION [Bk NIB Pgs 127-195] CHAPTER 05: MOLECULAR BASIS OF INHERITANCE [Bk NIB Pgs 197-259] <u>SYLLABUS OF UNIT TEST 1: CH 1 SEXUAL REPRODUCTION FLOWERING PLANTS AND CH 2 HUMAN REPRODUCTION</u>	Mendelian and Non- Mendelian Inheritance, Pedigree Analysis, Chromosomal theory of Inheritance, Sex linked inheritance and traits, Sex determination, Linkage, Mutation and Genetic Disorders in Humans. Nucleic acids, DNA Replication, Protein synthesis, Human genome project, DNA Fingerprinting, Rice genome project.	Explanation of the topics and Notes were given on Incomplete Dominance, Co -Dominance, Multiple Allelism, Pleiotropy, Polygenic inheritance, Linkage. [Bk NIB Pgs 127-195] Explanation of the topic and Notes given on DNA as the genetic material, DNA Replication, Protein synthesis, Gene expression, Human Genome Project, DNA fingerprinting, Genetic Code and Lac Operon. [Bk NIB Pgs 197-259]	Pictures of different genetic disorders are shown and Chart for Pedigree analysis was shown. Labelled diagrams of process of replication, protein synthesis and Operon concept.
AUGUST	24	CHAPTER 9- HUMAN HEALTH AND DISEASES [Bk NIB Pgs 347-416] CHAPTER 10- MICROBES IN HUMAN WELFARE [Bk NIB Pgs 417-438]	Common Diseases in Humans, AIDS and Cancer Immunity and it's types, Immune system in the body Microbes in Household products, Industrial products in Biogas production and in Sewage treatment, Biocontrol agents and Microbes in Bio fertilizers	Explanation and notes to be given on topics- Common diseases in Humans and Causes and Symptoms of AIDS and Cancer [Bk NIB Pgs 347-416] Explanation and Discussion On the topics- Microbes in Household products, Industrial products, energy generation, Biogas production and in Sewage treatment. Notes given on Bio fertilizers and Bio control agents [Bk NIB Pgs 417- 438]	Chart showing different types of Cancer. Tabular chart on types of breeding Labelled diagrams of Biogas production and Sewage treatment.
SEPTEMBER	03 <i>First term Examinee 07.9.26- 10.9.26</i>	SYLLABUS FOR FIRST TERM CHAPTERS- 1,2,3,4,5,6,7,8,9 and 10	REVISION OF CHAPTERS- 1,2,3,4,5,6,7,8,9,10	MCQs, SAQs and LAQs discussed	worksheet and assignments
	07	CHAPTER 11: BIOTECHNOLOGY: PRINCIPLES AND PROCESSES [Bk NIB 441- 470]	Principles of Biotechnology, tools and process of Recombinant DNA technology,	Explanation of the topics was done. Notes and low charts were given on the process of DNA technology and genetic transformation in plants and animals. [Bk NIB pgs 441-470]	Labelled diagrams of Bioreactors and gel electrophoresis.

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Signature of Teacher: 1. *Shaista Ahmed*

Submitted on: 20.04.2026

Academic Co-ordinator: *Souman Chatterjee*

PRINCIPAL:

Principals Signature

VICE PRINCIPAL:

Principals Signature



ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019

Session Plan/ Syllabus Coverage for the Academic Year 2026-2027

Term: Rehearsal Exam

No. Of Periods Available: 35

Name of the Subject Co-ordinator: Ms. Shaista Ahmed

Class: 12

Section: A

Subject: BIOLOGY

No. Of Working Days:8,41

Name of the Book: NOOTAN ISC BIOLOGY- By Prof V.Singh,D.K. Jain and Ajay Kr Bhattacharya 23rd Edition 26-27) [Bk NIB =Abbreviation]



MONTH	NO. OF PERIODS	LESSON	TOPICS COVERED	CLASS WORK	TEACHING AIDS
OCTOBER	15 <u>BIOLOGY PROJECT SUBMISSION ON 05.10.26</u>	<u>CHAPTER 12: BIOTECHNOLOGY AND IT'S APPLICATION</u> [Bk NIB 471-491] <u>CHAPTER 13: ORGANISMS AND POPULATION</u> [Bk NIB Pgs 495-528]	Objectives of Biotechnological Research, Applications of Biotechnology in Health and Medicine, Stem cell technology, Gene therapy, Molecular Diagnosis, ELISA, Transgenic animals, Biopiracy, bio patent, Bioethical issues and Biosafety. Levels of Ecological organisation, Population interactions, Attributes of Population	Explanation of the topics and Notes were given on production of Bt cotton and insulin using <i>E.coli</i> , Gene therapy, Transgenic animals, Bio piracy. [Bk NIB Pgs 471-491] Explanation of the topic levels of Ecological organisation and Population interactions. Notes were given on attributes of Population. [Bk NIB Pgs 495-528]	Labelled diagram of insulin production by <i>E. coli</i> . Pictorial representations of Population Interactions
NOVEMBER	20	<u>CHAPTER 14: ECOSYSTEM</u> [Bk NIB Pgs 529-560] <u>CHAPTER 15: BIODIVERSITY AND ITS CONSERVATION</u> [Bk NIB Pgs 561-592] <u>SYLLABUS COMPLETED</u>	Components of Ecosystem, Biotic factors, Structure of Pond Ecosystem, Flow of Energy, Productivity, Ecological services. Types of Biodiversity, Patterns of Biodiversity, Importance, Loss and Cause of Biodiversity, Concept of Threatened species, Genetic conservation, Ramsar sites and Historic conventions on Biodiversity. <u>REVISION OF THE SYLLABUS</u> <u>CHAPTERS :1,2,3,4,5,6,7,8,9,10,11,12,13,14 and 15</u>	Explanation of Components of an Ecosystem, Notes on Energy flow and energy pyramids were given [Bk NIB Pgs 529-560] Explanation of the topics was done. Notes were given on loss of Biodiversity and Comparison of in situ and Ex situ Conservation. Ramsar sites [Bk NIB Pgs 56-592] MCQs, SAQs and LAQs discussed	Tabular Chart of Pond Ecosystem, Charts on food web and food chain Charts on types of conservation strategies Worksheet and assignments
DECEMBER	-	<u>Rehearsal Exam begin from 01.12.26</u>	-	<u>Rehearsal Exam ends on 14.12.26</u>	-

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Signature of Teacher: 1.

Submitted on: 20.04.26

Academic Co-ordinator:

PRINCIPAL:

VICE PRINCIPAL: