



ISC

CLASS 12

SCIENCE

Class 12 Biology

Comprehensive senior secondary biological curriculum covering plant and human reproduction, Mendelian and molecular genetics, human welfare biotechnology, and ecosystem ecology.

GOVERNING BOARD
ISC

THEORY EXAMINATION
70 Marks

INTERNAL / PRACTICAL
30 Marks (Practical)

EXAM DURATION
3 Hours

UNIT-WISE SYLLABUS & MARKS BREAKDOWN

UNIT	CHAPTERS & PRESCRIBED TOPICS	MARKS
Unit 1	Reproduction Flowering plant reproduction (micro/megasporogenesis, double fertilization); Human reproduction (gametogenesis, menstrual cycle, embryonic development); Reproductive health	16
Unit 2	Genetics and Evolution Mendelian principles, chromosomal disorders, linkage, crossing over; DNA replication, transcription, translation, operon concept; Evolutionary evidence and mechanisms	20
Unit 3	Biology and Human Welfare Human diseases (malaria, AIDS, cancer), immunology, vaccines; Microbes in sewage, biogas, and medicine	12
Unit 4	Biotechnology and its Applications Recombinant DNA tools, cloning vectors, PCR, transgenic plants and animals, ethical issues	12
Unit 5	Ecology and Environment Population interactions, ecosystem energy flow and pyramids, biodiversity loss and conservation	10

INTERNAL / PRACTICAL ASSESSMENT SCHEME (30 MARKS (PRACTICAL))

EVALUATION COMPONENT	MARKS WEIGHTAGE
Taxonomy Dissection & Floral Formula Dissection of given flower and floral diagram	05 Marks
Slide Preparation & Spotting Temporary slide preparation and identification of 5 biological spots	09 Marks
Investigatory Project & Journal Detailed scientific project and signed practical record	10 Marks
Viva Voce Oral examination with external examiner	06 Marks

RECOMMENDED REFERENCE LITERATURE

Prescribed Textbooks: ISC Biology Class 12 (V. Singh / Nootan), S. Chand ISC Biology, Excellence Diagram Workbooks

THE EXCELLENCE TUITION EDGE

Every unit in this curriculum is taught with structured conceptual lectures, followed by weekly speed-testing, detailed mistake analysis, and dedicated 1:1 doubt-clearing sessions to build board exam confidence.

Excellence Tuition Centres: Sarsuna (Opp. High School) · Joka · Chatterjee Para (Behala)

Admissions & Inquiries: +91 89022 70803 · excellence-tuition.vercel.app