



CBSE

CLASS 12

SCIENCE

Class 12 Biology

Advanced biological sciences curriculum covering reproduction in organisms, human genetics, molecular biology, biotechnology applications, human health, and ecological biodiversity conservation.

GOVERNING BOARD
CBSE

THEORY EXAMINATION
70 Marks

INTERNAL / PRACTICAL
30 Marks (Practical)

EXAM DURATION
3 Hours

UNIT-WISE SYLLABUS & MARKS BREAKDOWN

UNIT	CHAPTERS & PRESCRIBED TOPICS	MARKS
Unit VI	Reproduction Sexual Reproduction in Flowering Plants (Pollination, double fertilisation, seed development); Human Reproduction (Male & female systems, gametogenesis, menstrual cycle, embryo development); Reproductive Health (Contraception, ART, IVF)	16
Unit VII	Genetics and Evolution Principles of Inheritance and Variation (Mendelian ratios, sex determination, genetic disorders: Thalassemia, Haemophilia); Molecular Basis of Inheritance (DNA structure, replication, transcription, translation, lac operon); Evolution (Darwinian theories, Hardy-Weinberg principle)	20
Unit VIII	Biology and Human Welfare Human Health and Disease (Pathogens: malaria, typhoid, AIDS, cancer; immunity, vaccines); Microbes in Human Welfare (Sewage treatment, biogas, biofertilisers, antibiotics)	12
Unit IX	Biotechnology and its Applications Biotechnology — Principles and Processes (Recombinant DNA technology, restriction enzymes, vectors, PCR); Biotechnology and its Applications (Bt crops, gene therapy, transgenic animals)	12
Unit X	Ecology and Environment Organisms and Populations (Population growth curves, adaptations); Ecosystem (Productivity, energy flow, ecological pyramids); Biodiversity and its Conservation (Hotspots, threats, in-situ and ex-situ conservation)	10

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

EVALUATION COMPONENT	MARKS WEIGHTAGE
Major & Minor Experiments Dissection/flower slide, pollen germination, soil/water testing	12 Marks
Spotting (Slides/Specimens) Identification and features of 5 specimens	07 Marks
Investigatory Project & Record Project report and practical record book	07 Marks

EVALUATION COMPONENT	MARKS WEIGHTAGE
Viva Voce External examiner interaction	04 Marks

RECOMMENDED REFERENCE LITERATURE

Prescribed Textbooks: NCERT Biology Class 12, Trueman's Elementary Biology, Excellence Biology Diagrams & Mindmaps

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