CLASS 11 BIOLOGY — LO's Aligned Monthly Split-up Syllabus (April 2026–March 2027) + Portion Boundaries + Exams + Weightage + Question Paper Design + Blueprint
(For CM SoE & Non-CM SoE)
Developed by:- Jharkhand Council Of Educational Research & Training (Curriculum Division)

Month	Teaching Days (Available)	NCERT Chapter Titles	Sub-topics / Portion Boundary	LOs (*LO Mapping - IDs) (NCERT Learning Outcomes at Higher Secondary Stage - Biology, Class XI)	Practicals / Activities (Minimum)	Assessment / Exams (प्रश्न पत्र एवं उत्तर कुंजिका निर्माण)
Apr2026 + May 2026 + Jun 2026		BIO: Chapter 1 The Living World (Complete); Chapter 2 Biological Classification (Complete); Chapter 3 Plant Kingdom (Complete)	Chapter 1: what is living; biodiversity; taxonomy and systematics; taxonomical categories; binomial nomenclature. Chapter 2: five kingdom classification; salient features and classification of Monera, Protista and Fungi into major groups; lichens, viruses and viroids. Chapter 3 (start): classification of plants into major groups; salient and distinguishing features of Algae, Bryophyta and Pteridophyta.	BIO-XI-LO-01, BIO-XI-LO-02, BIO-XI-LO-04, BIO-XI-LO-06, BIO-XI-LO-07, BIO-XI-LO-08, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-16, BIO-XI-LO-20, BIO-XI-LO-21	Activity: collection/identification of locally available specimens or pictures for kingdom-wise classification. Practical: herbarium sheet (intro) and taxonomic hierarchy chart; observation of slides/models of different groups.	April to June portion tested in Project RAIL on 07-07-2026 DIET Hazaribag एवं DIET Jamtara
Jul 2026	14	BIO: Chapter 4 Animal Kingdom (Complete); Chapter 5 Morphology of Flowering Plants (Start)	Chapter 3: Gymnosperms and Angiosperms. Chapter 4: basis of classification; salient features and classification of non-chordates up to phyla and chordates up to classes. Chapter 5 (start): morphology of root, stem and leaf.	BIO-XI-LO-01, BIO-XI-LO-02, BIO-XI-LO-04, BIO-XI-LO-06, BIO-XI-LO-08, BIO-XI-LO-09, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-16, BIO-XI-LO-19, BIO-XI-LO-20	Activity: prepare comparative classification flowchart for plant and animal groups. Practical: observation-based worksheet on animal diversity; root/stem/leaf modifications chart.	July portion tested in Project RAIL on 04-08-2026 DIET Latehar एवं DIET Lohardaga
Aug 2026	12	BIO: Chapter 5 Morphology of Flowering Plants (Finish); Chapter 6 Anatomy of Flowering Plants (Complete); Chapter 7 Structural Organisation in Animals (Start)	Chapter 5: inflorescence, flower, fruit and seed; floral formula, floral diagram; family Solanaceae. Chapter 6: anatomy and functions of tissue systems in dicots and monocots. Chapter 7 (start): morphology and anatomy of frog; digestive and circulatory systems (intro).	BIO-XI-LO-01, BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-08, BIO-XI-LO-09, BIO-XI-LO-10, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-14, BIO-XI-LO-15, BIO-XI-LO-16	Practical: floral formula and floral diagram; transverse section of root/stem/leaf observation; dicot–monocot anatomy comparison chart.	Half Yearly Exam: 07-09-2026 to 12-09-2026 (covers Jun–Aug).
Sep 2026	23	BIO: Chapter 7 Structural Organisation in Animals (Finish); Chapter 8 Cell: The Unit of Life (Complete); Chapter 9 Biomolecules (Complete); Chapter 10 Cell Cycle and Cell Division (Complete); Chapter 11 Photosynthesis in Higher Plants (Complete)	Chapter 7: respiratory, nervous and reproductive systems of frog. Chapter 8: cell theory; prokaryotic and eukaryotic cells; plant and animal cell; organelles and their functions; endomembrane system; cilia, flagella, centrioles; nucleus. Chapter 9 : biomolecules; carbohydrates, proteins, lipids and nucleic acids, enzymes—types, properties and mechanism of action; structure and function of biomolecules. Chapter 10: cell cycle, mitosis, meiosis and significance. 11: photosynthesis as a means of autotrophic nutrition; pigments; light reaction; Calvin cycle; factors affecting photosynthesis.	BIO-XI-LO-01, BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-05, BIO-XI-LO-07, BIO-XI-LO-08, BIO-XI-LO-10, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-13, BIO-XI-LO-14, BIO-XI-LO-16, BIO-XI-LO-17	Practical: temporary mount / model-based identification of cell structures; frog system diagrams; biomolecule identification table (intro). Practical: food tests for carbohydrates/proteins/fats; study of mitosis/meiosis slides; chromatography of pigments / demonstration; graph interpretation for enzyme activity or photosynthesis.	September portion tested in Project RAIL on 06-10-2026 DIET Ramgarh एवं DIET Ranchi
Oct 2026	22	BIO: Chapter 12 Respiration in Plants (Complete); Chapter 13 Plant Growth and Development (Complete); Chapter 14 Breathing and Exchange of Gases (Complete); Chapter 15 Body Fluids and Circulation (Start)	Chapter 12: pathways of respiration; fermentation; aerobic respiration; respiratory quotient. Chapter 13: growth; phases; growth regulators; development. Chapter 14: human respiratory system; mechanism of breathing; exchange and transport of gases; regulation of respiration. Chapter 15 (start): composition of blood and blood groups; coagulation (intro).	BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-05, BIO-XI-LO-08, BIO-XI-LO-10, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-13, BIO-XI-LO-14, BIO-XI-LO-15, BIO-XI-LO-16, BIO-XI-LO-17, BIO-XI-LO-18	Activity: breathing rate observation and report; chart on plant growth regulators and uses. Practical: respiration/transpiration demonstrations where feasible.	October portion tested in Project RAIL on 03-11-2026 DIET Simdega एवं DIET W-Singhbhum.
Nov 2026	14	Chapter 15 Body Fluids and Circulation (Finish); Chapter 16 Excretory Products and their Elimination (Complete); Chapter 17 Locomotion and Movement (Complete);	Chapter 15: human circulatory system; cardiac cycle; ECG; double circulation; lymph. Chapter 16: excretory system; urine formation; regulation; micturition; kidney disorders. Chapter 17: movement and muscular system; sliding filament theory.	BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-05, BIO-XI-LO-07, BIO-XI-LO-08, BIO-XI-LO-12, BIO-XI-LO-13, BIO-XI-LO-14, BIO-XI-LO-15, BIO-XI-LO-16, BIO-XI-LO-17, BIO-XI-LO-18, BIO-XI-LO-21	Practical: osmosis/plasmolysis / transpiration / food test records finalisation; human physiology charts; viva and practical file correction.	November portion tested in Project RAIL on 08-12-2026 DIET Deoghar एवं DIET Dhanbad
Dec 2026	21	BIO: Chapter 18 Neural Control and Coordination (Complete); Chapter 19 Chemical Coordination and Integration (Complete)	Chapter 18: neuron; central and peripheral nervous system; reflex action; sense organs. Chapter 19: endocrine glands; hormones and mechanisms of hormonal action. Portion boundary: Full syllabus completed (Ch. 1–19) by Dec 2026.	BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-05, BIO-XI-LO-07, BIO-XI-LO-12, BIO-XI-LO-13, BIO-XI-LO-14, BIO-XI-LO-15, BIO-XI-LO-16, BIO-XI-LO-17, BIO-XI-LO-18, BIO-XI-LO-20, BIO-XI-LO-22	Practical consolidation: slide/diagram drill, record completion, investigatory project finalisation, mixed worksheet + sample paper discussion.	December portion tested in Project RAIL on 12-01-2027 DIET Garhwa एवं DIET Giridih

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Jan 2027	18	Full Biology Revision + NCERT-based Diagrams + Practical File + Investigatory Project	Full syllabus wrap-up: Chapters 1–19; concept consolidation; high-weightage diagrams, graph interpretation and case-based questions; practical record and investigatory project completion.	BIO-XI-LO-01, BIO-XI-LO-02, BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-05, BIO-XI-LO-08, BIO-XI-LO-10, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-13, BIO-XI-LO-14, BIO-XI-LO-15, BIO-XI-LO-16, BIO-XI-LO-17, BIO-XI-LO-18, BIO-XI-LO-20, BIO-XI-LO-21, BIO-XI-LO-22	Revision practicals + viva practice; sample papers; diagram drill sessions; remedial groups for weak areas.	Project RAIL (Full Syllabus) on 02-02-2027 DIET Hazaribag एवं DIET Jamtara
Feb 2027 (Revision Month)	19	Full Revision: Chapters 1–19 (NCERT) + Diagrams + Practical File + Investigatory Project	Syllabus consolidation: concept maps; plant and animal diversity; morphology, anatomy, cell, biomolecules, plant physiology and human physiology; practical file and investigatory project final check.	BIO-XI-LO-01, BIO-XI-LO-02, BIO-XI-LO-03, BIO-XI-LO-04, BIO-XI-LO-05, BIO-XI-LO-08, BIO-XI-LO-10, BIO-XI-LO-11, BIO-XI-LO-12, BIO-XI-LO-13, BIO-XI-LO-14, BIO-XI-LO-15, BIO-XI-LO-16, BIO-XI-LO-17, BIO-XI-LO-18, BIO-XI-LO-20, BIO-XI-LO-21, BIO-XI-LO-22	Revision practicals + viva practice; sample papers; diagram drill sessions; remedial groups for weak areas.	Annual Examination: 01-03-2027 to 05-03-2027 AND 15-03-2027 to 20-03-2027 - full syllabus
Mar 2027	20	Board Examination (continued, if applicable) / Post-exam Academic Support	Board examination continuation / light post-exam academic engagement, bridge work, reading / enrichment / record completion as applicable.	BIO-XI-LO-16, BIO-XI-LO-20, BIO-XI-LO-21, BIO-XI-LO-22	Bridge activities / portfolio / reading enrichment / feedback.	Post-exam school support (as applicable)

LO ID	NCERT Learning Outcome (Higher Secondary Stage - Biology, Class XI)
BIO-XI-LO-01	differentiates organisms, phenomena and processes based on certain characteristics and salient features, such as prokaryotes and eukaryotes, plant cell and animal cell, diffusion and osmosis, meristematic and permanent tissues, squamous and cuboidal epithelium, diploblastic and triploblastic organisation, and chromosome types.
BIO-XI-LO-02	classifies organisms, phenomena and processes systematically on the basis of characteristic / salient features, such as five-kingdom classification, hierarchical structural organisation and natural resources.
BIO-XI-LO-03	relates processes and phenomena with causes and effects, such as characteristics of living with cell as the basic unit of life, transpiration pull with absorption of water by roots, tissues with functions, deficiency symptoms, cardiac pumping and circulation, hormone functions, digestive enzymes, ECG and heart diseases, smoking and lung diseases.
BIO-XI-LO-04	applies scientific terminology for organisms, processes and phenomena using accepted conventions, such as technical description of flowers, taxonomic study, binomial nomenclature, coelom, symmetry, bisexual/unisexual flowers, actinomorphic/zygomorphic flowers, aestivation, placentation, cardiac cycle, SA node and AV node.
BIO-XI-LO-05	explains systems, relationships, processes and phenomena efficiently, such as organ systems in frog, cockroach and earthworm; structure and function of cell organelles; photosynthesis; respiration; and mechanism of skeletal muscle contraction.
BIO-XI-LO-06	describes contributions of scientists/researchers in the evolution of concepts, discoveries and inventions in Biology, such as Leeuwenhoek and Robert Brown, Aristotle, Linnaeus and R. H. Whittaker in classification.
BIO-XI-LO-07	makes linkages at the interface of Biology with other disciplines, such as mathematical models of growth rates, absorption and transfer of light energy in photosynthesis, secondary metabolites, protein structure and DNA structure.
BIO-XI-LO-08	draws labelled diagrams, flow charts, concept maps, graphs and floral diagrams, such as floral diagrams of given flowers, parts of flowers, modified roots, external features of earthworm, cockroach and frog, Z-scheme of light reaction and Calvin cycle.
BIO-XI-LO-09	writes floral formulae in technical language based on floral diagrams of different flowers, such as pea, makoi and onion.
BIO-XI-LO-10	prepares slides to study structural intricacies of life forms and structural organisations, such as transverse sections of root, stem and leaves, mitosis and meiosis, and pollen germination.
BIO-XI-LO-11	handles laboratory tools, apparatus, instruments and devices properly for activities / experiments / investigations, such as using a foldscope/microscope, digital balance/scale and pipette.
BIO-XI-LO-12	plans and conducts investigations and experiments to verify facts and principles or answer queries, such as structure of organisms in nature, flower structure of Pisum sativum, plant growth, plant respiration, breath composition and effect of chewing cooked rice.

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BIO-XI-LO-13	analyses and interprets graphs and figures, such as enzyme activity-temperature, pH and substrate concentration graphs, growth versus time graphs and oxygen dissociation curve.
BIO-XI-LO-14	uses scientific conventions, symbols and equations to represent quantities, elements and units, such as SI units, symbols of elements, formulae of simple compounds, aerobic and anaerobic respiration pathways and organic compounds in living organisms.
BIO-XI-LO-15	draws conclusions on the basis of data collected in activities / experiments / investigatory projects, such as modifications of roots, stems and leaves; effect of nutrient deficiency on plant physiology; and protein-energy malnutrition.
BIO-XI-LO-16	communicates findings and conclusions effectively from experiments, activities and projects in oral and written forms using appropriate figures, tables, graphs and digital forms, and participates in discussions/argumentations.
BIO-XI-LO-17	applies scientific concepts of Biology in daily life and problem solving, such as lawn regrowth due to lateral meristem, tree-age estimation from rings and change in urine concentration/volume with water intake.
BIO-XI-LO-18	appreciates technological applications and processes in Biology for improved quality of life and sustainable development, such as hydroponics, commercial uses of algae, dialysis and artificial limbs.
BIO-XI-LO-19	exhibits creativity in designing models using eco-friendly resources and preparing charts / paintings / sketches on biological topics, such as structure of cockroach.
BIO-XI-LO-20	exhibits ethics and values of honesty, objectivity, rational thinking and freedom from myths/superstitions while taking decisions, such as accurate reporting of experimental data and respect for life during investigations.
BIO-XI-LO-21	makes efforts to conserve the environment by realising interdependency and inter-relationship in biotic and abiotic factors, such as use of weed plants in studies and eco-friendly waste material.
BIO-XI-LO-22	applies learning to hypothetical situations, such as possibility of life on other planets.

QUESTION PAPER DESIGN / BLUEPRINT

A. THEORY BLUEPRINT

S.No.	Unit / Section Block	Marks	Prescribed Scope / Paper Component
1	Unit I	15	Diversity of Living Organisms
2	Unit II	10	Structural Organization in Plants and Animals
3	Unit III	15	Cell: Structure and Function
4	Unit IV	12	Plant Physiology
5	Unit V	18	Human Physiology
	TOTAL	70	Theory Paper

B. TYPOLOGY OF QUESTIONS

S.No.	Category / Question Type	Marks	Weightage / Nature
1	Demonstrate Knowledge & Understanding	35	50%
2	Application of Knowledge / Concepts	21	30%
3	Analyse / Evaluate / Create	14	20%
	TOTAL	70	100%

C. INTERNAL / PRACTICAL / PROJECT

S.No.	Component	Marks	Remarks
1	One Major Experiment	5	
2	One Minor Experiment	4	
3	Slide Preparation	5	
4	Spotting	7	

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5	Practical Record + Viva Voce	4	
6	Project Record + Viva Voce	5	
	TOTAL	30	Practical