

# CBSE Class: 11 Biology Deleted Syllabus 2022-23

## Chapter-1: The Living World

### Old Syllabus

#### What is living?

Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature.

**Tools for study of taxonomy-museums, zoological parks, herbaria, botanical gardens.**

### New Syllabus

**Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature.**

### Deleted Syllabus

#### What is living?

**Tools for study of taxonomy-museums, zoological parks, herbaria, botanical gardens.**

|                             |       |                         |         |
|-----------------------------|-------|-------------------------|---------|
| Chapter 1: The Living World | 3-5   | 1.1 What is 'Living'?   | DELETED |
|                             | 11-14 | 1.4 Taxonomical Aids    |         |
|                             | 12    | 1.4.2 Botanical Gardens |         |
|                             | 12    | 1.4.3 Museum            |         |
|                             | 13    | 1.4.4 Zoological Parks  |         |
|                             | 14    | Summary (Para 2)        |         |
|                             | 15    | Question no. 10         |         |

## Chapter-2: Biological Classification

### Old Syllabus

Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups: Lichens, Viruses and Viroids.

### New Syllabus

**Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids.**

**No deletion**

### Chapter-3: Plant Kingdom

#### Old Syllabus

Classification of plants into major groups - Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae and Angiospermae.

#### New Syllabus

Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae.

(Topics excluded – Angiosperms, Plant Life Cycle and Alternation of Generations)

#### Deleted Syllabus

#### Angiosperms, Plant Life Cycle and Alternation of Generations.

|                             |                            |   |         |
|-----------------------------|----------------------------|---|---------|
| Chapter 3:<br>Plant Kingdom | 40–41<br>42–43<br>44<br>45 | 3.5 Angiosperms<br>3.6 Plant Life Cycles and<br>Alternation of Generations<br>Summary (Para 5 and 6)<br>Question no. 10 | DELETED |
|-----------------------------|----------------------------|---|---------|

### Chapter-4: Animal Kingdom

#### Old Syllabus

Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level (salient features and at a few examples of each category). (No live animals or specimen should be displayed.)

#### New Syllabus

**Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level (salient features and at a few examples of each category). (No live animals or specimen should be displayed.)**

#### No Deletion

### Chapter-5: Morphology of Flowering Plants

#### Old Syllabus

Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of families: **Fabaceae**, Solanaceae and **Liliaceae**.

#### New Syllabus

**Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae.**

#### Deletion

**Description of families: Fabaceae and Liliaceae.**

|   |  |  |         |
|---|--|--|---------|
| Chapter 5:<br>Morphology of<br>Flowering Plants | 67–68<br>68–69<br>71<br>78–79<br>81<br>82–83 | 5.1.2 Modifications of Root<br>5.2.1 Modifications of Stem<br>5.3.4 Modifications of Leaves<br>5.9.1 Fabaceae<br>5.9.3 Liliaceae<br>Question nos 1, 2, 6 (b) 8,<br>9, 12, 14 | DELETED |
|---|--|--|---------|

## Chapter-6: Anatomy of Flowering Plants

### Old Syllabus

Anatomy and functions of tissue systems in dicots and monocots. **Secondary growth.**

### New Syllabus

Anatomy and functions of tissue systems in dicots and monocots.

### Deleted Syllabus

**Secondary growth**

## Chapter-7: Structural Organisation in Animals

### Old Syllabus

**Animal tissues;** Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of **Earthworm, Cockroach**, Frog.

### New Syllabus

Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.

### Deleted Syllabus

**Animal tissues, Earthworm, Cockroach.**

|  |   |   |         |
|--|---|---|---------|
| Chapter 7:<br>Structural<br>Organisation in<br>Animals | 100<br>101–102<br>102–103<br>104–105<br>105–106<br>106–111<br>106–107<br>107–108<br>111<br>111–112<br>113–115<br>120–121<br>121–122 | 7.1 Animal Tissues<br>7.1.1 Epithelial Tissue<br>7.1.2 Connective Tissue<br>7.1.3 Muscle Tissue<br>7.1.4 Neural Tissue<br>7.3 Earthworm<br>7.3.1 Morphology<br>7.3.2 Anatomy<br>7.4 Cockroach<br>7.4.1 Morphology<br>7.4.2 Anatomy<br>Summary (Para 2, 3, 4)<br>Question nos 1, 2, 3, 4, 5,<br>6, 7, 8, 9, 10, 11, 12, 14 (c) | DELETED |
|--|---|---|---------|

## Unit-III Cell: Structure and Function

### Chapter-8: Cell-The Unit of Life

#### Old Syllabus

Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus.

#### New Syllabus

Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus.

#### No Deletion

### Chapter-9: Biomolecules

#### Old Syllabus

Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Enzymes- types, properties, enzyme action. **Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents – Concept of Metabolism, Metabolic Basis of Living, The Living State.**

#### New Syllabus

**Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Enzyme - types, properties, enzyme action.**

(Topics excluded: Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents – Concept of Metabolism, Metabolic Basis of Living, The Living State)

#### Deleted Syllabus

**Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents – Concept of Metabolism, Metabolic Basis of Living, The Living State.**

|                            |         |  |         |
|----------------------------|---------|--|---------|
| Chapter 9:<br>Biomolecules | 151     | 9.8 Nature of Bond Linking Monomers in a Polymer             | DELETED |
|                            | 152     | 9.9 Dynamic State of Body Constituents—Concept of Metabolism |         |
|                            | 153     | 9.10 Metabolic Basis for Living                              |         |
|                            | 160–161 | 9.11 The Living State<br>Question nos 2, 3, 5, 8, 10         |         |

## Chapter-10: Cell Cycle and Cell Division

### Old Syllabus

Cell cycle, mitosis, meiosis and their significance.

### New Syllabus

Cell cycle, mitosis, meiosis and their significance.

### No Deletion

|  |         |                             |
|--|---------|-----------------------------|
| <b>Chapter 11: Transport in Plants</b> | 175–193 | <b>Full Chapter Deleted</b> |
| <b>Chapter 12: Mineral Nutrition</b>   | 194–205 | <b>Full Chapter Deleted</b> |

## Chapter-13: Photosynthesis in Higher Plants

### Old Syllabus

Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C<sub>3</sub> and C<sub>4</sub> pathways; factors affecting photosynthesis.

### New Syllabus

Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C<sub>3</sub> and C<sub>4</sub> pathways; factors affecting photosynthesis.

### No Deletion

## Chapter-14: Respiration in Plants

### Old Syllabus

Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.

### New Syllabus

Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.

### No deletion

## Chapter-15: Plant Growth and Development

### Old Syllabus

Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA; **seed dormancy; vernalisation; photoperiodism.**

### New Syllabus

**Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA;**

### Deleted Syllabus

**Seed dormancy; vernalisation; photoperiodism.**

|   |     |                          |         |
|---|-----|--------------------------|---------|
| <b>Chapter 15:<br/>Plant Growth and Development</b> | 251 | 15.5 Photoperiodism      | Deleted |
|   | 252 | 15.6 Vernalisation       |         |
|   | 252 | 15.7 Seed Dormancy       |         |
|   | 254 | Question nos 3, 5, 8, 10 |         |

|   |         |                             |
|---|---------|-----------------------------|
| <b>Chapter-16:<br/>Digestion and Absorption</b> | 257-267 | <b>Full Chapter Deleted</b> |
|---|---------|-----------------------------|

## Chapter-17: Breathing and Exchange of Gases

### Old Syllabus

Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders.

### New Syllabus

Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders.

### No Deletion

## **Chapter-18: Body Fluids and Circulation**

### **Old Syllabus**

Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.

### **New Syllabus**

Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.

### **No Deletion**

## **Chapter-19: Excretory Products and their Elimination**

### **Old Syllabus**

Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.

### **New Syllabus**

Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.

### **No Deletion**

## **Chapter-20: Locomotion and Movement**

### **Old Syllabus**

Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.

### **New Syllabus**

Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.

### **No Deletion**

## Chapter-21: Neural Control and Coordination

### Old Syllabus

Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse; **reflex action; sensory perception; sense organs; elementary structure and functions of eye and ear**

### New Syllabus

Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse.

### Deleted Syllabus

**Reflex action; sensory perception; sense organs; elementary structure and functions of eye and ear**

|   |   |  |         |
|---|---|--|---------|
| Chapter 21:<br>Neural Control and<br>Coordination | 322   | 21.5 Reflex Action and<br>Reflex Arc     | DELETED |
|   | 322   | 21.6 Sensory Reception and<br>Processing |         |
|   | 322–323   | 21.6.1 Eye                               |         |
|   | 323   | 21.6.1.1 Parts of an Eye                 |         |
|   | 323–324   | 21.6.1.2 Mechanism of<br>Vision          |         |
|   | 324–326   | 21.6.2 The Ear                           |         |
|   | 327   | 21.6.2.1 Mechanism of<br>Hearing         |         |
| 328   | Summary (para 3 and 4)  | DELETED                                  |         |
| 329–330   | Question nos 1 (b, c), 2 (c),<br>4, (c, d), 5 (e, f, g, h), 6 (b,<br>c), 7, 8 (b, c), 9 (c), 10 (a),<br>11, 12 (c, d) |  |         |

## Chapter-22: Chemical Coordination and Integration

### Old Syllabus

Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease.

**Note:** Diseases related to all the human physiological systems to be taught in brief.

### New Syllabus

Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease.

**Note:** Diseases related to all the human physiological systems to be taught in brief.

### No Deletion