

CONTENT DIRECTORY

CLASS XI PART I

1. Biomolecule

1-17

- Key Notes
- Basic Level
 - Carbohydrate
 - Lipids
 - Proteins
 - Nucleic Acids
 - Enzymes
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

2. Respiration and Energy Transfer 18-43

- Key Notes
- Basic Level
 - Formation of ATP
 - Anaerobic Respiration
 - Aerobic Respiration
 - Utility of Stepwise Oxidation
 - Respiratory Quotient
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

3. Human Nutrition

44-67

- Key Notes
- Basic Level
 - Human Digestive System
 - Histological Structure of Alimentary canal
 - Digestive glands
 - Physiology of Digestion
 - Absorption, Assimilation and Egestion
 - Nutritional Disorders and Disorders of digestive system
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

4. Excretion and osmoregulation 68-97

- Key Notes
- Basic Level
 - Excretion and Excretory Products

- Excretory system In Human beings
- Urine Formation
- Concentration of Urine
- Composition of Urine
- Roles of other organs in Excretion
- Disorders and Diseases
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

CLASS XII PART II

5. Reproduction In Lower And Higher Plants

98-123

- Key Notes
- Basic Level
 - Asexual Reproduction
 - Sexual Reproduction
 - Microsporogenesis
 - Structure of Anatripous Ovule
 - Megasporogenesis
 - Pollination
 - Outbreeding Devices
 - Pollen-Pistil Interaction
 - Double Fertilisation
 - Development of Endosperm
 - Development of Embryo
 - Seed and Fruit Development
 - Apomixis
 - Parthenocarpy
 - Polyembryony
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

6. Reproduction In Lower And Higher Animals

124-158

- Key Notes
- Basic Level
 - Asexual Reproduction in Animals
 - Sexual Reproduction in Animals
 - Menstrual Cycle
 - Gametogenesis

- Fertilisation
- Embryonic Development
- Pregnancy
- Placenta
- Parturition
- Lactation
- Reproductive Health
- Birth control
- Sexually Transmitted Diseases (STDs)
- Infertility
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

7. Inheritance And Variation 159-192

- Key Notes
- Basic Level
 - Heredity, Variation and Mendelian Inheritance
 - Deviations from Mendelian Laws
 - Chromosomal Theory of Inheritance
 - Linkage and Crossing Over
 - Autosomal Inheritance
 - Sex Linked Inheritance
 - Sex-Determination
 - Genetic Disorders
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

8. Molecular Basis Of Inheritance 193-221

- Key Notes
- Basic Level
 - The Discovery of DNA
 - The Genetic Material is DNA
 - DNA Packaging
 - DNA Replication
 - Protein Synthesis
 - Regulation of Gene Expression
 - Operon Concept
 - Genomics
 - Human Genome Project
 - DNA Fingerprinting
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

9. Origin And Evolution Of Life 222-250

- Key Notes
- Basic Level
 - Origin Of Life

- Chemical Evolution of Life
- Organic Evolution
- Darwinism
- Mutation Theory
- Modern Synthetic Theory of Evolution
- Mechanism of Organic Evolution
- Hardy-Weinberg's Principle
- Adaptive Radiation
- Evidences of Organic Evolution
- Speciation
- Geological Time Scale
- Human Evolution
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

10. Plant-water Relation 251-277

- Key Notes
- Basic Level
 - Properties of Water
 - Water Absorbing Organ
 - Water Available to Roots for Absorption
 - Absorption of Water by Roots from Soil
 - Water Potential
 - Plasmolysis
 - Path of Water Across the Root
 - Mechanism of Absorption of Water
 - Translocation of Water
 - Transport of Mineral Ions
 - Transport of Food
 - Transpiration
 - Structure of Stomatal Apparatus
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

11. Plant Growth And Mineral Nutrition 278-303

- Key Notes
- Basic Level
 - Plant Growth
 - Phases of Growth
 - Conditions for Growth
 - Growth Rate and Types of Growth
 - Growth Curve
 - Differentiation, Dedifferentiation, ReDifferentiation
 - Development
 - Plasticity
 - Growth Hormones
 - Photoperiodism

- Vernalisation
- Mineral Nutrients
- Nitrogen Cycle
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

12. Respiration And Circulation 304-345

- Key Notes
- Basic Level
 - Organs of Respiratory Exchange
 - Human Respiratory System
 - Mechanism of Respiration
 - Regulation of Breathing
 - Modified Respiratory Movements
 - Common Disorders of Respiratory System
 - Transportation In Living Organisms
 - Circulation in Animals
 - Circulatory System in Human
 - Red Blood Cells (RBCs)
 - White Blood Cells (WBCs)
 - Thrombocytes/Platelets
 - Heart
 - Working Mechanism of Human Heart
 - Blood Vessels
 - Blood Pressure
 - ECG
 - Lymphatic System
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

13. Control And Coordination 346-395

- Key Notes
- Basic Level
 - Nervous System in Hydra
 - Nervous System in Planaria (Flatworm)
 - Neural Tissue
 - Synapse
 - Transmission of Nerve Impulse
 - Human Nervous System
 - Sensory Receptors
 - Disorders of Nervous System
 - Endocrine System
 - Major Endocrine Glands
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

14. Human Health And Diseases 396-427

- Key Notes
- Basic Level
 - Immunity
 - Structure of Antibody
 - Common Human Diseases
 - Adolescence
 - Addiction
 - Drug Abuse
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

15. Enhancement Of Food

Production 428-458

- Key Notes
- Basic Level
 - Improvement in Food Production
 - Plant Breeding
 - Tissue Culture
 - Single Cell Protein
 - Biofortification
 - Animal Husbandry
 - Microbes in Human Welfare
 - Roles of Microbes in Industrial Production
 - Microbes in Sewage Treatment
 - Microbes in energy generation
 - Role of Microbes as Biocontrol Agent
 - Role of Microbes as Biofertilisers
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

16. Biotechnology

459-480

- Key Notes
- Basic Level
 - Biotechnology
 - Principles and Processes of Biotechnology
 - Methodology of Recombinant DNA Technology
 - Applications of Biotechnology
 - Bioethics
 - Effect of Biotechnology on Environment
 - Effect of Biotechnology on Human Health
 - Biopatent and Biopiracy
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

17. Organisms And Populations 481-499

- Key Notes
- Basic Level
 - Organisms and the Environment Around
 - Major Abiotic Factors
 - Adaptations
 - Population
 - Population Interactions
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

18. Ecosystem And Energy Flow 500-523

- Key Notes
- Basic Level
 - Ecosystem
 - Energy Flow
 - Ecological Pyramids
 - Nutrient Cycling
 - Ecological Succession
 - Ecosystem Services
- Single Concept Based Advance Level
- Mixed Concept Based

- PYQ Section
- Support Section

19. Biodiversity, Conservation And Environmental Issues 524-549

- Key Notes
- Basic Level
 - Levels of Biodiversity
 - Patterns of Biodiversity
 - Biodiversity Current Scenario
 - Loss of Biodiversity
 - Conservation of Biodiversity
 - Biological Diversity Act, 2002
 - Environmental Issues
 - Greenhouse Effect and Global Warming
 - Ozone Depletion
 - Deforestation
 - Mission Harit Maharashtra
- Single Concept Based Advance Level
- Mixed Concept Based
- PYQ Section
- Support Section

Mock Tests (1-3)

550-598