

**SYLLABUS IN THE SUBJECT OF BIOLOGY**  
**FYJC Science.**

<b>Chapter Number &amp; Name</b>	<b>Portion for academic year 2021-2022 examinations</b>
Chapter 1: Living World	1.1) Basic principles of life
Chapter 2: Systematics of the Living Organisms	2.13) Salient features of five Kingdoms, Monera, Protista, Fungi, Plantae and Animalia.
Chapter 3: Kingdom Plantae	3.1) Kingdom Plantae 3.2) Salient features of major groups under Cryptogams, viz., Thallophyta, Bryophyta and Pteridophyta with examples. 3.3) Salient features of major plant groups under, Phanerogams, viz., [A] Gymnospermae only. 3.4) Plant life cycle and Alternation of Generation.
Chapter 4: Kingdom Animalia	4.1) Criteria for Animal classification, 4.2) Body plan and Symmetry. 4.3) Animal classification as of Phyla- Porifera, Cnidaria, Ctenophora, Platyhelminthes, Asclehelminthes, Annelida, Arthropoda, Mollusca, Echinodermata, Hemichordata, Chordata (with sub phyla, Urochordata, Cephalochordata and Vertebrata with its classes and examples.)
Chapter 5: Cell Structure and Organization.	5.1) Cell 5.2) Kinds of cells 5.3) Components of Eukaryotic cell- organelles such as Cell wall, cell membrane, Cytoplasm, Endoplasmic reticulum, Golgi complex, Lysosomes, Vacuoles, Glyoxysomes, Mitochondria, Plastids, Ribosomes, Nucleus and cytoskeleton.
Chapter 6: Biomolecules	6.2) Biomolecules in the cell- Carbohydrates, Lipids, Proteins, Nucleic acids, DNA & RNA, Enzymes and its activity, other substances.
Chapter 7: Cell Division	7.1) Cell cycle, 7.2) Types of cell divisions, viz. Amitosis, Mitosis and Meiosis.
Chapter 8: Plant tissues and anatomy	<b>Deleted</b>
Chapter 9: Morphology of flowering plants	9.2.D) Inflorescence and it's Types. 9.2.E) Flower- Structure of Typical Flower, its parts, etc. 9.3) Study of family- Solanaceae only

Chapter 10: Animal tissue	10.1) Histology 10.2) Epithelial tissues 10.3) Connective tissues 10.4) Muscular tissues & Nervous tissues
Chapter 11: Study of Animal type	11.1) Habit and habitat of Cockroach 11.2) Systematic position 11.11) Interactions with mankind
Chapter 12: Photosynthesis.	12.1) Structure of Chloroplast 12.2) Nature of Light 12.3) Mechanism of Photosynthesis 12.4) Light reaction, Dark reaction, 12.5) Photophosphorylation 12.6) Dark reaction 12.7) Photorespiration 12.8) C <sub>4</sub> pathway 12.9) CAM 12.10) Factors affecting photosynthesis and Significance.
Chapter13: Respiration and Energy Transfer	13.1) Formation of ATP 13.2) Anaerobic respiration 13.3) Aerobic Respiration 13.4) Utility of stepwise oxidation.
Chapter 14: Human Nutrition	Deleted
Chapter 15: Excretion and Osmoregulation.	15.1) Excretion and excretory products, 15.2) Excretory system in human 15.3) Urine formation 15.4) Concentration of urine 15.5) Composition of urine 15.6) Role of other organs in excretion 15.7) Disorders and diseases.
Chapter 16: Skeleton and Movement.	16.2) Location and structure of skeletal muscles, 16.3) Working of skeletal muscles, 16.4) Mechanisms of muscle contraction 16.5) Physiology of muscle relaxation 16.6) Relaxation of muscle fibres 16.7) Properties of muscles on electrical stimulation.