

THE AIR FORCE SCHOOL : SUBROTO PARK : DELHI CANTT-110010

Class – XI

Sub: BIOLOGY

Weekly Syllabus

Academic Session 2024-25

Month	Week	Dates		Days	No of Periods	Chapter	Contents	Syllabus
Mar 24	Block Teaching							
Apr-24	I	01-06	06-Working Saturday (Staff)	05	5	Chapter 1- THE LIVING WORLD	1 What is living 1.1 Diversity in the living world 1.3 Taxonomic categories Microscopy	
	II	08-12	11 – Id-ul-Fitr	04	4	Chapter 2 – BIOLOGICAL CLASSIFICATION	Two kingdom classification Five kingdom classification 2.1 Kingdom Monera 2.1.1 Archaeobacteria 2.1.2 Eubacteria 2.2 Kingdom Protista 2.2.1 Chrysophytes 2.2.2 Dinoflagellates 2.2.3 Euglenoids Specimens/slides/models and identification with reasons - Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one	
	III	15-19	14 - Ambedkar Jayanti 17 – Ram Navami 21 - Mahavir Jayanti	04	4	Chapter 2 – BIOLOGICAL CLASSIFICATION	2.2.4 Slime moulds 2.2.5 Protozoans 2.3 Kingdom Fungi 2.3.1 Phycomycetes	

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							Specimens/slides/models and identification of liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant	
	IV	22-27	27-Working Saturday (Student)	06	7	Chapter 2 – BIOLOGICAL CLASSIFICATION	2.3 Kingdom Fungi 2.3.1 Phycomycetes 2.3.2 Ascomycetes 2.3.4 Deutromycetes 2.4 Kingdom Plantae 2.5 Kingdom Animalia 2.6 Viruses Viroids Lichens dicotyledonous plant and one lichen.	
	V	29-30		02	2	Chapter 3 – PLANT KINGDOM	3.1 Algae 3.1.1 Chlorophyceae 3.1.2 Phaeophyceae 3.1.3 Rhodophyceae	
May-24	I	01-03	01-03 : ES-1 (XII)/ CT-1 (X)	03	3	Chapter 3 – PLANT KINGDOM	3.2 Bryophytes 3.2.1 Liverworts 3.2.2 Mosses	ES-1 (XII)/ CT-1 (X) Date: 01-07 May
	II	06-10	06-07 : ES-1 (XII)/ CT-1 (X) 09,10 – The Quest	05	6	Chapter 3 – PLANT KINGDOM	3.3 Pteridophytes 3.4 Gymnosperms	

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	III	13-18	18- Working Saturday (Open House X & XII)	06	7	Chapter 3 – PLANT KINGDOM	3.4 Gymnosperms 3.5 Angiosperm	
***** SUMMER BREAK 20 MAY -30 JUN 2024 *****								
Jul-24	I	01-06	01-School reopens for staff 06-Working Saturday (Student)	05	5	Chapter 4 – ANIMAL KINGDOM	4.1 Basis of classification 4.1.1 Levels of organization 4.1.2 Symmetry 4.1.3 Diploblastic and Triploblastic organization 4.1.4 Coelom 4.1.5 Segmentation 4.1.6 Notochord generation 4.2.1 Phylum Porifera 4.2.2 Phylum Coelenterata	PT-I Class VI-X Date: 05 Jul – 12Jul
	II	08-12		05	5	Chapter 4 – ANIMAL KINGDOM	4.2.3 Phylum – ctenophora 4.2.4-Phylum-platyhelminthes 4.2.5 phylum-aschelminthes 4.2.6 Phylum-annelida 4.2.7 Phylum Arthropoda 4.2.8 phylum-Mollusca <i>Virtual specimens/slides/models and identifying features of - Amoeba, Hydra, liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.</i>	ES-2 (XII): 05 Jul – 12Jul
	III	15-19	17-Muharram	04	4	Chapter 4 – ANIMAL KINGDOM	4.2.9 Phylum-echinodermata 4.2.10 Phylum-Hemichordata 4.2.11 Phylum-chordata Cyclostomata Chondrichthyes	

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							Osteichythes Amphibians Reptiles Aves Mammals	
	IV	22-27	27 – Working Saturday (Students)	06	7	Chapter 5 – MORPHOLOGY OF FLOWERING PLANTS	Chapter 5 – MORPHOLOGY OF FLOWERING PLANTS 5.1 – The root 5.2 – The stem 5.3 – The leaf 5.4 – The Inflorescence <i>Different types of inflorescence (cymose and racemose).</i>	
	V	29-31		03	3	Chapter 5 – MORPHOLOGY OF FLOWERING PLANTS	5.5 – The flower 5.6 – The fruit 5.7 – The seed 5.8 – Semi Technical Description of a typical flowering plant 5.9 – Solanaceae <i>Study and describe locally available common flowering plants, from family Solanaceae (including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound).</i>	
Aug-24	I	01-03	03 – Working Saturday (Open House (VI-X), XII)	03	3	Chapter 6 – ANATOMY OF FLOWERING PLANTS	6.1 –The tissue system 6.2 Anatomy of Dicot & monocot plants 6.2.1 Dicot roots 6.2.2 Monocot. <i>Preparation and study of T.S. of dicot and monocot roots and stems (primary).</i>	

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	II	05-09		05	5	Chapter 6 – ANATOMY OF FLOWERING PLANTS	roots 6.2.3 Dicot stem 6.2.4 Monocot stem 6.2.5 Dorsiventral leaf 6.2.6 Isobilateral leaf <i>Preparation and study of T.S. of dicot and monocot stems and leaf</i>	
	III	12-16	15 – Independence Day	04	4	Chapter 7 – STRUCTURAL ORGANISATION IN ANIMALS	7.1 Animal tissues, organ and organ system 7.2 Frogs: Morphology And Anatomy (Digestive, Circulatory, Respiratory, Nervous And Reproductive)	
	IV	19-23	19-Raksha Bandhan	04	4	Chapter 8 – CELL: THE UNIT OF LIFE	8.1 What is a cell 8.2 Cell Theory 8.3 An overview of cell 8.4 Prokaryotic cell 8.4.1 Cell Envelope and its modifications 8.4.2 Ribosomes and inclusion bodies 8.5 Eukaryotic cells 8.5.1 cell membrane 8.5.2 Cell Wall 8.5.3 Endomembrane system 8.5.3.1 The Endoplasmic	ES-1 (XI): CH 1 TO 3
	V	26-31	26- Janmashtami 31-Working Saturday (Students) 31-Annual Prize Distribution	05	5	Chapter 8 – CELL: THE UNIT OF LIFE	Reticulum 8.5.3.2 Golgi apparatus 8.5.3.3 Lysosome, 8.5.4 Mitochondria 8.5.5 Plastid 8.5.6 Ribosomes 8.5.7 Cytoskeleton 8.5.8 Cilia And Flagella 8.5.9 Centrosome And Centriole 8.5.10 Nucleus 8.5.11 Microbodies	
Sep-24	I	02-06		05	5		Revision for HYE	

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	II	09-14	14 – Working Saturday (Students)	06	7	Mid Term/ HYE Exam		Mid Term (PT-II)/ HYE Date 02-14 Sep CHAPTER 1 TO 8
	III	16-21	16-Milad-un-Nabi 21 – Working Saturday (Students)	05	5	Chapter – 9 – Biomolecules 9.1 How to analyze chemical composition 9.2 Primary & secondary Metabolites 9.3 Biomacromolecules 9.4 Proteins		
	IV	23-27		05	5	9.5 Polysaccharide 9.6 Nucleic Acids 9.7 Structure of proteins 9.8 Enzymes Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials		
	V	30		01	1	Chapter – 9 – Biomolecules	NCERT QUESTION ANSWER DISCUSSION	
	II	01-05	02-Mahatma Gandhi's Birthday 05-Annual Prize Distribution	04	4	Chapter 10-Cell cycle and cell division	10.1 Cell cycle 10.1.1 Phases of cell cycle 10.2 M phase 10.2.1 Prophase 10.2.2 Metaphase 10.2.3 Anaphase 10.2.4 Telophase 10.2.5 Cytokinesis 10.3 Significance of mitosis Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.	
Oct-24	III	07-12	09-13- Autumn Break	02	2	Chapter 10-Cell cycle and cell	10.4 Meiosis 10.4.1 Meiosis1 10.4.2 Meiosis2	

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			12- Dussehra			division	10.5 Significance of meiosis	
	IV	14-19	17-Maharishi Valmiki's Birthday 19 – Working Saturday (Open House VI-XII)	05		Chapte-11 Photosynthesis	11.1What do we know 11.2Early experiments 11.3Where does photosynthesis takes place 11.4How many pigments are involved in photosynthesis 11.5 What is light reaction <i>Study of osmosis by potato osmometer</i>	
	V	21-25	20– Karwa Chouth	05		Chapte-11 Photosynthesis	11.6The electron transport 11.6.1Splitting of water 11.6.2Cyclic and noncyclic photophosphorylation 11.6.3 Chemiosmotic hypothesis 11.7 Where are the ATP and NADPH used 11.7.1 The primary acceptor of carbon dioxide 11.7.2 The Calvin cycle 11.8 The C4 pathway	
	VI	28-31	30-03 Nov – Diwali Break	02		Chapte-11 Photosynthesis	11.9 Photorespiration 11.10 Factors affecting photosynthesis <i>Study of distribution of stomata on the upper and lower surfaces of leaves.</i>	
*** Autumn Break 09-13 Oct 2024 ***								
Nov-24	I	04-09	09 – Working Saturday (Students)	06	7	Chapter-12 Respiration in plants	12.1 Do plants breathe 12.2 Glycolysis 12.3 Fermentation 12.4 Aerobic respiration 12.4.1 TCA cycle 12.4.2 The electron transport system	

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							12.5 The respiratory balance sheet 12.6 Amphibolic pathway 12.7 Respiratory quotient Separation of plant pigments through paper chromatography	
	II	11-15	12 – Annual Day 15 – Guru Nank's Birthday	04	4	Chapter 13 – Plant growth & Development	13.1-Growth 13.2 Differentiation, Dedifferentiation, Redifferentiation 13.3 Development	
	III	18-22		05	5	Chapter 13 – Plant growth & Development	13.4 Plant growth regulator Study of plasmolysis in epidermal peels (e.g. Rhoelily leaves or flashy scale leaves of onion bulb).	ES-II XI): 19 Nov- 10 Dec CH 9 TO 11
	IV	25-30	29,30 – Annual Athletic Meet	06	6	Chapter 14 – Breathing and exchange of gases	14.1 Respiratory organs 14.1.1 Human respiratory system 14.2 Mechanism of breathing 14.2.1 Respiratory volumes and capacities 14.3 Exchange of gases 14.4 Transport of gases 14.4.1 Transport of oxygen 14.4.2 Transport of carbon dioxide 14.5 Regulation of respiration	
Dec-24	I	02-07	07 – Sports Day	06	7	Chapter 15 – Body fluids and circulation	15.1 Blood 15.1.1 Plasma 15.1.2 Formed elements 15.1.3 Blood groups 15.1.4 Coagulation of blood 15.2 Lymph	

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							15.3 Circulatory pathways 15.3.1 Human circulatory system Human circulatory system 15.3.2 Cardiac cycle 15.3.3 Electro cardiograph 15.4 Double circulation 15.5 Regulation of cardiac activities 15.6 Disorders of circulatory system	
	II	09-13		05	5	Chapter 16 - Excretory products and their elimination	16.1 human excretory system 16.2 Urine formation 16.3 Functions of the tubules Mechanism of the 19.4 concentration of the filtrate	
	III	16-21	21-Working Saturday, Open House (X & XII)	06	6	Chapter 16 - Excretory products and their elimination	16.5 Regulation of the kidney functions 16.6 Micturition 16.7 Role of other organs in excretion 16.8 Disorders of excretory system <i>Test for presence of urea in urine.</i> <i>Test for presence of sugar in urine.</i> <i>Test for presence of albumin in urine.</i> <i>Test for presence of bile salts in urine.</i>	
	IV	23	24,25 – Christmas Holidays	01	1	Chapter 17 – Locomotion and Movement	17.1 Types of movements 17.2 Muscle	
*** Winter Break from 26 Dec to 04 Jan 2025 ***								

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Jan-25	I	06-10		05	5	Chapter 17 – Locomotion and Movement	17.2.1 Structure of contractile proteins 17.2.2 Mechanism of muscle contraction 17.3 Skeletal System 17.4 Joints . Human skeleton and different types of joints with the help of virtual images/models only.	
	II	13-18	18-Working Saturday, Open House (VI-IX, XI)	06	6	Chapter 18 – Neural control and coordination Chapter-19 Chemical coordination and integration	18.1 Neural system 18.2 Human Neural System 18.3 Neuron Structural And Functional Unit Of Life 18.3.1 Generation and conduction of nerve impulse 18.3.2Transmission of impulses 18.4 central nervous system 19.1 Endocrine glands and hormones Human 19.2 endocrine system 19.2.1 The Hypothalamus 19.2.2 The pituitary gland19.2.3 The Pineal gland 19.2.4 Thyroid Gland 19.2.5Parathyroid Glands 19.2.6Thymus 19.2.7Adrenal Glands 19.2.8Pancreas	
	III	20-25	25-Citation Ceremony 25-Open House XII 26-Republic Day	06	7	Chapter-22 Chemical coordination and integration	19.2.9Testis 19.2.10 Ovary 19.3 hormones of heart, kidney and gastro intestinal tract 19.4Mechanism of hormonal action	
	IV	27-31		05	5		REVISION FOR ANNUAL EXAM	

Month	Week	Dates		Days	No of Periods	Chapter	Contents	Syllabus
Feb-25	I	01	01 – Farewell XII 01- Open House X	01				
	II	03-07		05				Annual Exam Class IX & XI – 05 Feb-19 Feb 2025 Ch 5 to 19
	III	10-14		05				
	IV	17-22	22-Working Saturday (students)	06				
	V	24-28	26-Maha Shivratri	04				
Mar-25	Annual Exam Classes VI-VIII – 25 Feb-10 Mar 2025							

Note: The examination syllabus as mentioned above is to be considered Tentative. The final syllabus for each exam will be uploaded on the website along with the Date Sheet at the time of the examination.