

ACA/DI37		Academic year 2025-2026
Rev:00	Teaching Plan	Name of Faculty: Mrs Anjum Mulla, Mrs Raginee Sonawane
Stream: Science		
Standard: 12th A, 12thB	Subject: Biology	Subject Code: 056

Chapter No.	Name of Chapter	Topics/ content of chapter	Planned Date of Commencing	Planned Date of Completion	Media/Teaching Aid/ Teaching Method used
0	Introduction	Introduction paper pattern biology, Chapter wise weightage	3/4/2025	3/4/2025	Board manual
1	Reproduction in Lower and Higher Plants	asexual reproduction in plants	4/4/2025	4/4/2025	PPT and Video
		Sexual Reproduction, structure of a flower	7/4/2025	8/4/2025	PPT and Video
		structure of anther, structure of gynoecium	9/4/2025	10/4/2025	PPT and Video
		Structure of anatropous ovule Development of ovule and anther	11/4/2025	15/4/2025	PPT and Video
		Pollination and its types	16/4/2025	18/4/2025	PPT and Video
		Outbreeding devices , pollen Pistil Interaction	21/4/2025	23/4/2025	PPT and Video
		Double Fertilization	24/4/2025	25/4/2025	PPT and Video
		Seed and Fruit Development Parthenocarpy, Polyembryony	28/4/2025	30/4/2025	PPT and Video
		Chromosomes and Mechanism of inheritance. Mendel's Success, Genetic terminologies	2/5/2025	7/5/2025	PPT and Video
		Laws of Inheritance	2/6/2025	4/6/2025	PPT and Video
		Non mendelian Inheritance	5/6/2025	9/6/2025	PPT and Video

3	Inheritance and Variation	Structure of chromosome, X and Y chromosome	10/6/2025	10/6/2025	PPT and Video
		Linkage and crossing over	11/6/2025	11/6/2025	PPT and Video
		Autosomal Inheritance, Sex Linked Inheritance	12/6/2025	13/6/2025	PPT and Video
		Sex Determination in man, birds, honeybees	16/6/2025	19/6/2025	PPT and Video
		Genetic Disorders	20/6/2025	23/6/2025	PPT and Video
4	Molecular Basis of Inheritance	Discovery of DNA	24/6/2025	26/6/2025	PPT and Video
		Structure of DNA, DNA Packaging DNA replication	27/6/2025	30/6/2025	PPT and Video
		Central Dogma of cell, Transcription, Genetic code	1/7/2025	2/7/2025	PPT and Video
		Translation	3/7/2025	3/7/2025	PPT and Video
		Structure of Operon, Lac operon DNA fingerprinting	4/7/2025	8/7/2025	PPT and Video
5	Origin and Evolution of Life	Origin of life theories Formation of cell, Urey MillerExperiment	9/7/2025	10/7/2025	PPT and Video
		Organic Evolution, Darwins Principles Mutation Theory, Modern Synthesis theory	11/7/2025	12/7/2025	PPT and Video
		Natural selection, types, mecanism, adaptive radiation	21/7/2025	22/7/2025	PPT and Video
		evidences of organic evolution Speciation, Geological Time scale	23/7/2025	24/7/2025	PPT and Video
		Human evolution	25/7/2025	28/7/2025	PPT and Video
		Water absorbing organs	29/7/2025	29/7/2025	PPT and Video
		Imbibition, diffusion, Osmosis	30/7/2025	30/7/2025	PPT and Video
		Water Potential, factors affecting absorption	31/7/2025	31/7/2025	PPT and Video

6	Plant Water Relation	Path of water into roots Mechanism of absorption of water	1/8/2025	1/8/2025	PPT and Video
		Translocation of water Transpiration Pull	4/8/2025	4/8/2025	PPT and Video
		Translocation of Minerals Transpiration	5/8/2025	5/8/2025	PPT and Video
		Transport of food	6/8/2025	6/8/2025	PPT and Video
		Transpiration	7/8/2025	7/8/2025	PPT and Video
7	Plant Growth and Mineral Nutrition	Plant Growth, Phases of Growth Growth Rate and Types of Growth	8/8/2025	8/8/2025	PPT and Video
		Growth Curve Development, Plasticity, Hormones	11/8/2025	11/8/2025	PPT and Video
		Cytokinins, ethylene, ABA	12/8/2025	13/8/2025	PPT and Video
		Photoperiodism Minerals classification, deficiency disorders	14/8/2025	18/8/2025	PPT and Video
		Toxicity of micronutrients	19/8/2025	19/8/2025	
		Mineral Absorption, Nitrogen cycle and fixation	20/8/2025	20/8/2025	PPT and Video
8	Respiration and Circulation	Definition, Respiratory organs in Plants and animals Human respiratory System	21/8/2025	22/8/2025	PPT and Video
		Mechanism of Respiration Regulation of Breathing	25/8/2025	26/8/2025	PPT and Video
		Modified Respiratory Movements	28/8/2025	29/8/2025	PPT and Video
		Respiratory Disorders, Artificial Ventilation	2/9/2025	2/9/2025	PPT and Video
		Transportation in Living Organisms Composition of Blood, Human Circulatory system	3/9/2025	4/9/2025	PPT and Video
		External and Internal structure of Heart	8/9/2025	8/9/2025	PPT and Video

		Pumping and Conducting system of Heart Blood vessels and Blood Pressure	15/9/2025	16/9/2025	PPT and Video
		Instruments Like ECG, Lymphatic System	17/9/2025	18/9/2025	PPT and Video
9	Control and Co-ordination	Nervous Co-ordination and Nervous Tissue	19/9/2025	19/9/2025	PPT and Video
		Synapse types of synapse	23/9/2025	23/9/2025	PPT and Video
		Transmission of nerve impulse	24/9/2025	24/9/2025	PPT and Video
		Human Nervous System Cranial Nerves and Function	25/9/2025	25/9/2025	PPT and Video
		Spinal cord, TS of spinal cord	26/9/2025	26/9/2025	PPT and Video
		Cranial nerves, Spinal nerves, formation of typical spinal nerve	27/9/2025	27/9/2025	PPT and Video
		Reflex action and types, ANS , SNS	29/9/2025	29/9/2025	PPT and Video
		PNS, Sensory receptors and its types	30/9/2025	30/9/2025	PPT and Video
		Sensory Receptors: Eye and Ear	1/10/2025	3/10/2025	PPT and Video
		Disorders of nervous system	6/10/2025	6/10/2025	PPT and Video
		Chemical Co-ordination Endocrine system Pitutary Gland Thyroid Gland	7/10/2025	7/10/2025	PPT and Video
		Disorders related to thyroid gland, adrenal cortex, Gonads	8/10/2025	8/10/2025	PPT and Video
		Immunity, types of Immunity	3/11/2025	4/11/2025	PPT and Video
		Mechanism of action of B and T Lymphocytes	6/11/2025	7/11/2025	PPT and Video
		Vaccination and structure of antibody	8/11/2025	8/11/2025	PPT and Video

10	Human health and Diseases	Blood groups, Rh factor Common Human Diseases	10/11/2025	10/11/2025	PPT and Video
		Cancer, types, causes, treatment, prevention	11/11/2025	12/11/2025	PPT and Video
		HIV structure, AIDS, Transmission, Detection, Prevention Adolescence, Drugs, Drug abuse, Addiction	13/11/2025	14/11/2025	PPT and Video
11	Enhancement of Food Production	Plant breeding Hybridisation, Indian Hybrid crops	17/11/2025	17/11/2025	PPT and Video
		Tissue culture, micropropagation SCP, Biofortification	18/11/2025	18/11/2025	PPT and Video
		Animal Husbandary Dairy Breeding techniques	19/11/2025	19/11/2025	PPT and Video
		Poultry Farm management, bee culture Fishery, sericulture, Lac culture	20/11/2025	20/11/2025	PPT and Video
		Microbes in Human welfare Vitamin , antibiotic , organic acids, enzymes production	21/11/2025	21/11/2025	PPT and Video
		Microbes in sewage treatment Biogas, Microbes as biofertilizers	22/11/2025	22/11/2025	PPT and Video
12	Biotechnology	Biotechnology, Principles and process of biotechnology	24/11/2025	24/11/2025	PPT and Video
		Gene cloning and RDT	25/11/2025	25/11/2025	PPT and Video
		applications of biotechnology health care biotechnology, gene therapy	26/11/2025	26/11/2025	PPT and Video
		agriculture, GMO Transgenic animals Bioethics, bio-piracy and bio-patent	27/11/2025	28/11/2025	PPT and Video
		Asexual reproduction methods Sexual Reproductionin animals, human reproduction	29/11/2025	29/11/2025	PPT and Video

2	Reproduction in Lower and Higher Animals	Male Reproductive system	1/12/2025	1/12/2025	PPT and Video
		Female Reproductive system	2/12/2025	2/12/2025	PPT and Video
		Puberty, menstrual Cycle	3/12/2025	3/12/2025	PPT and Video
		Gametogenesis	4/12/2025	4/12/2025	PPT and Video
		Fertilization/syngamy Embryo development	5/12/2025	5/12/2025	PPT and Video
		Pregnancy, Parturition Lactation, reproductive health	8/12/2025	8/12/2025	PPT and Video
		Birth Control Methods	9/12/2025	9/12/2025	PPT and Video
		STDs, infertility, IVF, ZIFT	10/12/2025	10/12/2025	PPT and Video
		GIFT, ICSI, Sperm bank, Adoption	11/12/2025	11/12/2025	PPT and Video
13	Organism and Population	Biome, Habitat Niche, Abiotic Factors affecting Environment	12/12/2025	12/12/2025	PPT and Video
		Adaptations, Hibernation Aestivation Population and Population growth	13/12/2025	13/12/2025	PPT and Video
		Population Interactions:	15/12/2025	15/12/2025	PPT and Video
14	Ecosystem and Energy Flow	Ecosystem Structure and Function, Productivity	16/12/2025	16/12/2025	PPT and Video
		Decomposition and Energy Flow	17/12/2025	17/12/2025	PPT and Video
		Food Chain food web and Ecological Pyramids	18/12/2025	18/12/2025	PPT and Video
		Nutrient Cycles: Carbon and Phosphorus	19/12/2025	19/12/2025	PPT and Video
		Ecological succession: Hydrarch and Xerarch Succession	22/12/2025	22/12/2025	PPT and Video
		Ecosystem services	23/12/2025	23/12/2025	PPT and Video
		Definition and levels of Biodiversity	24/12/2025	24/12/2025	PPT and Video
		Importance of species Diversity to ecosystem	26/12/2025	26/12/2025	PPT and Video

15	Biodiversity Conservation and Environmental issues	Loss and Causes of biodiversity	27/12/2025	27/12/2025	PPT and Video
		Conservation of Biodiversity	29/12/2025	29/12/2025	PPT and Video
		Biodiversity Act 2002, Environmental Issues	30/12/2025	30/12/2025	PPT and Video
		Air and Water Pollution	30/12/2025	30/12/2025	PPT and Video
		Noise and Solid waste Pollution	30/12/2025	30/12/2025	PPT and Video
		Green house gases Ozone layer Depletion	30/12/2025	30/12/2025	PPT and Video
		Global warming, Deforestation, Reforestation	31/12/2025	31/12/2025	PPT and Video
		Case studies and Fact Files.	31/12/2025	31/12/2025	PPT and Video

Mrs Raginee Sonawane

Biology
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Mr S N Patil

Principal
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ACA/DI/15	Exam Plan	Academic year 2024-25
Rev:00		Name of Faculty: Mrs Anjum Mulla, Mrs Raginee Sonawane
Stream: Science		
Standard: 12th A, 12thB	Subject: Biology	Subject Code: 056

Exam	Month	Syllabus
Unit Test -1	15 July to 18 July 2025	Reproduction in Lower and Higher Plants
		Inheritance and Variation
Unit Test -2	9 Sept to 12 Sept 2025	Plant Growth and Mineral Nutrition
		Molecular Basis of Inheritance
		Origin and Evolution of Life
Term-I	10 Oct to 17 October 2025	Plant Water Relation
		Human health and Diseases
		Plant Growth and Mineral Nutrition
		Biotechnology
		Reproduction in Lower and Higher Plants
		Inheritance and Variation
		Molecular Basis of Inheritance
Prelim 1	12 Jan to 21 Jan 2026	Respiration and Circulation
		Control and Co-ordination
Prelim 2	22 Jan to 30 Jan 2026	Full Syllabus
Prelim 2	22 Jan to 30 Jan 2026	Full Syllabus

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