

Study Plan	
Mentor	Aman Sir, Parikshit Sir & Damini Ma'am
Lecture Time	10 AM - 6 PM
Date	Title Unit
	BASIC BIOLOGY
Tuesday, Mar 31, 2026	Spontaneous generation theory
Wednesday, Apr 1, 2026	Prokaryotes vs eukaryotes
Thursday, Apr 2, 2026	Functional anatomy of microorganisms
Friday, Apr 3, 2026	Structure and organization of bacteria
Monday, Apr 6, 2026	Structure and organization of fungi
Tuesday, Apr 7, 2026	Structure and organization of algae and their economic importance
Wednesday, Apr 8, 2026	Methods of sterilization
Thursday, Apr 9, 2026	Rhizosphere microorganisms and their importance
Friday, Apr 10, 2026	Plant-microbe interactions in soil
Monday, Apr 13, 2026	Microbial transformation of nutrients in soil
Tuesday, Apr 14, 2026	Carbohydrates – occurrence and classification
Wednesday, Apr 15, 2026	Lipids – occurrence and classification
Thursday, Apr 16, 2026	Proteins and amino acids – occurrence and classification
Friday, Apr 17, 2026	Carbohydrate metabolism
Monday, Apr 20, 2026	Lipid metabolism
Tuesday, Apr 21, 2026	Glycolysis
Wednesday, Apr 22, 2026	TCA cycle
Thursday, Apr 23, 2026	Pentose phosphate pathway
Friday, Apr 24, 2026	Electron transport chain and oxidative phosphorylation
Monday, Apr 27, 2026	Secondary metabolites – occurrence and classification
Tuesday, Apr 28, 2026	Functions and applications of secondary metabolites
Date	ECOLOGY
Wednesday, Apr 29, 2026	Physical environment
Thursday, Apr 30, 2026	Biotic environment
Friday, May 1, 2026	Biotic and abiotic interactions
Monday, May 4, 2026	Concept of habitat and niche
Tuesday, May 5, 2026	Niche width and overlap
Wednesday, May 6, 2026	Fundamental and realized niche
Thursday, May 7, 2026	Resource partitioning
Friday, May 8, 2026	Character displacement
Monday, May 11, 2026	Population characteristics
Tuesday, May 12, 2026	Population growth curves
Wednesday, May 13, 2026	Population regulation
Thursday, May 14, 2026	Life history strategies
Friday, May 15, 2026	Concept of metapopulation
Monday, May 18, 2026	Interspecific competition
Tuesday, May 19, 2026	Herbivory and carnivory

Wednesday, May 20, 2026	Pollination and symbiosis
Thursday, May 21, 2026	Community structure and attributes
Friday, May 22, 2026	Species diversity and its measurement
Monday, May 25, 2026	Ecotones and edges
Tuesday, May 26, 2026	Ecological succession
Wednesday, May 27, 2026	Concept of climax
Thursday, May 28, 2026	Energy flow and mineral cycling
Friday, May 29, 2026	Primary production and decomposition
Monday, Jun 1, 2026	Major terrestrial biomes
Tuesday, Jun 2, 2026	Theory of island biogeography
Wednesday, Jun 3, 2026	Biogeographical zones of India
Date	PLANT BIOLOGY
Thursday, Jun 4, 2026	Light harvesting complexes
Friday, Jun 5, 2026	Electron transport mechanisms in photosynthesis
Monday, Jun 8, 2026	Photoprotective mechanisms
Tuesday, Jun 9, 2026	CO ₂ fixation – C3 pathway
Wednesday, Jun 10, 2026	CO ₂ fixation – C4 pathway
Thursday, Jun 11, 2026	CO ₂ fixation – CAM pathway
Friday, Jun 12, 2026	Plant mitochondrial electron transport and ATP synthesis
Monday, Jun 15, 2026	Photorespiration
Tuesday, Jun 16, 2026	Nitrate and ammonium assimilation
Wednesday, Jun 17, 2026	Amino acid biosynthesis
Thursday, Jun 18, 2026	Plant hormones – biosynthesis and transport
Friday, Jun 19, 2026	Physiological effects and mechanisms of plant hormones
Monday, Jun 22, 2026	Phytochromes, cryptochromes and phototropins
Tuesday, Jun 23, 2026	Stomatal movement
Wednesday, Jun 24, 2026	Photoperiodism and biological clocks
Thursday, Jun 25, 2026	Solute transport and photoassimilate translocation
Friday, Jun 26, 2026	Transpiration
Monday, Jun 29, 2026	Secondary metabolite biosynthesis
Tuesday, Jun 30, 2026	Plant responses to biotic stress
Wednesday, Jul 1, 2026	Plant responses to abiotic stress
Thursday, Jul 2, 2026	Plant tissue culture and applications
Friday, Jul 3, 2026	Molecular marker technology
Monday, Jul 6, 2026	Transgenic technology and GMOs
Tuesday, Jul 7, 2026	Molecular pharming
Date	MICROSCOPIC TECHNIQUES
Wednesday, Jul 8, 2026	Light microscopy and resolving power
Thursday, Jul 9, 2026	Microscopy of living cells
Friday, Jul 10, 2026	Scanning and transmission electron microscopy
Monday, Jul 13, 2026	Fixation and staining techniques for EM
Tuesday, Jul 14, 2026	Freeze-etch and freeze-fracture methods
Wednesday, Jul 15, 2026	Image processing methods in microscopy

Date	METHODS IN FIELD BIOLOGY
Thursday, Jul 16, 2026	Methods of estimating population density of animals and plants
Friday, Jul 17, 2026	Ranging patterns through direct, indirect and remote observations
Monday, Jul 20, 2026	Sampling methods in behavioral studies
Tuesday, Jul 21, 2026	Habitat characterization methods
Date	HORTICULTURE
Wednesday, Jul 22, 2026	Scope and importance of horticulture
Thursday, Jul 23, 2026	Global scenario of horticultural crops
Friday, Jul 24, 2026	Classification of horticultural crops
Monday, Jul 27, 2026	Nutritive value of horticultural crops
Tuesday, Jul 28, 2026	Horticulture zones of India
Wednesday, Jul 29, 2026	Systematic botany terminology
Thursday, Jul 30, 2026	Morphology and classification of root, stem and leaf
Friday, Jul 31, 2026	Inflorescence and flower morphology
Monday, Aug 3, 2026	Flowering mechanism
Tuesday, Aug 4, 2026	Modes of pollination
Wednesday, Aug 5, 2026	Vegetative reproduction
Thursday, Aug 6, 2026	Floral biology
Friday, Aug 7, 2026	Fertilization and fruit set
Monday, Aug 10, 2026	Principles of nomenclature
Date	LANDSCAPING AND GARDENING
Tuesday, Aug 11, 2026	Importance and scope of gardening
Wednesday, Aug 12, 2026	Gardens in India
Thursday, Aug 13, 2026	Concepts of landscape gardening
Friday, Aug 14, 2026	Styles of gardens
Monday, Aug 17, 2026	Hindu, Mughal, English, Italian gardens
Tuesday, Aug 18, 2026	Persian and Japanese gardens
Wednesday, Aug 19, 2026	Ornamental landscaping in environmental protection
Date	FOOD TECHNOLOGY
Thursday, Aug 20, 2026	Food processing industries and institutions in India
Friday, Aug 21, 2026	Causes of food spoilage
Monday, Aug 24, 2026	Methods of food preservation
Tuesday, Aug 25, 2026	Post-harvest storage of fruits and vegetables
Wednesday, Aug 26, 2026	Preparation of fruits and vegetables for processing
Thursday, Aug 27, 2026	Technology of foods of animal origin