

TELANGANA BOARD OF INTERMEDIATE EDUCATION: HYDERABAD

ANNUAL ACADEMIC PLAN – 2025-2026

BOTANY

SECOND YEAR

Month/ No. of working days & Periods	Topics to be covered Unit – Test / Exams / EAPCET/NEET classes to be conducted	Periods allotted for each topic
JUNE 23	<p>Syllabus dictation and discussion of IPE Question paper along with scheme of valuation- weightage of marks to each chapter.</p> <p>UNIT- 1 PLANT PHYSIOLOGY</p> <p>CHAPTER1:Transport in plants</p> <p>1.1 Means of Transport</p> <p>1.2 Plant water relations</p> <p>1.3 Long distance transport of water</p> <p>1.4 Transpiration</p> <p>1.5 Uptake and transport of Mineral nutrients</p> <p>1.6 Phloem Transport :Flow from source to sink</p> <p>CHAPTER-2 Mineral Nutrition</p> <p>2.1 Methods to study the Mineral requirement of plant</p> <p>2.2 Essential Mineral Elements</p> <p>2.3 Mechanism of Absorption of Elements</p> <p>2.4 Translocation of Solutes</p> <p>2.5 Soil as Reservoir of Essential Elements</p> <p>2.6 Metabolism of Nitrogen</p> <p>Practicals :</p> <p>#1. Study of osmosis by potato osmoscope</p> <p style="text-align: center;">Unit Test – I EAPCET/NEET</p>	<p>01</p> <p>01</p> <p>02</p> <p>02</p> <p>02</p> <p>01</p> <p>01</p> <p>01</p> <p>01</p> <p>01</p> <p>02</p> <p>02</p> <p>02</p> <p>02</p> <p>01</p> <p>04</p>

AUG 22	4.8 The C4 pathway 4.9 Photorespiration 4.10 Factors affecting photosynthesis CHAPTER – 5: Respiration in plants 5.1 Do plants breathe 5.2 Glycolysis 5.3 Fermentation 5.4 Aerobic Respiration 5.5 The Respiratory balance sheet 5.6 Amphibolic pathway 5.7 Respiratory Quotient CHAPTER 6: Plant Growth and Development 6.1 Growth 6.2 Differentiation and dedifferentiation and Redifferentiation 6.3 Development Practicals: #4. Separation of plant pigments through paper chromatography <div style="text-align: center;">Unit Test – III EAPCET/NEET</div>	01 01 01 01 02 01 03 01 01 01 01 01 02 01 04
SEPT 22	6.4 Plant Growth Regulators 6.5 Seed dormancy 6.6 Photoperiodism 6.7 Vernalisation UNIT II : MICROBIOLOGY CHAPTER 7 : Bacteria 7.1 Morphology of Bacteria 7.2 Bacteria cell structure 7.3 Nutrition 7.4 Reproduction 7.5 The importance of Bacteria to Humans	04 01 01 01 01 01 01 01

	CHAPTER 8: Viruses 8.1 Discovery of viruses } 8.2 Classification of Viruses } 01 8.3 Structure of Viruses } 02 8.4 Multiplication of Bacteriophage } 01 8.5 Viral diseases in plants } 01 8.6 Viral diseases in Animals } Practicals: #5.Study of plant population density and frequency by Quadrant method. 02 Unit Test – IV 01 EAPCET/NEET 04	
	FIRST TERM HOLIDAYS 28-09-2025 To 05-10-2025 	
OCT 21	UNIT III : GENETICS CHAPTER 9 : Principles of Inheritance and variations 9.1 Mendel's Experiments 01 9.2 Inheritance of one gene(Monohybrid cross) 02 9.3 Deviations from Mendelian concept of dominance 02 9.4 Inheritance of Two Genes (Dihybrid cross) 01 9.5 Chromosomal theory of Inheritance 01 9.6 Linkage and recombination 01 9.7 Mutations 01 UNIT IV: Molecular Biology CHAPTER 10: Molecular Basis of Inheritance . 10.1 The DNA 02 10.2 The Search for Genetic Material 01 10.3 RNA World 01 10.4 Replication 02	

	UNIT – VI: PLANTS, MICROBES AND HUMAN WELFARE CHAPTER – 13 Strategies for Enhancement in Food Production 13.1 Plant Breeding 13.2 Single Cell Protein (SCP) 13.3 Tissue Culture CHAPTER – 14 Microbes in Human Welfare 14.1 Microbes in Household Products } 14.2 Microbes in Industrial Products } 14.3 Microbes in Sewage Treatment } 14.4 Microbes in Production of Biogas } 14.5 Microbes as Bio-control Agents } 14.6 Microbes as Bio-fertilizers } 14.7 Challenges posed by Microbes } Practicals: (To be Demonstrated by Teacher) #10.Observe and comment on the following #A. Anaerobic respiration #B. Phototropism #C. Apical bud removal #D. Suction due to transpiration pull. #11.Exercise on Controlled pollination - Emasculation, Bagging and Tagging (Activity) Unit Test – VI EAPCET/NEET	01 01 02 01 01 01 01 01 02 01 04
JAN 2026 19	#Record Verification and Certification #Herbarium Verification and Certification REVISION IPE Theory	
	SANKRANTI HOLIDAYS FROM 11-01-2026 To 18-01-2026	
	PRE-FINAL EXAMINATIONS 19-01-2026 To 24-01-2026	

	PRACTICAL SYLLABUS REVISION (1ST YEAR) PRACTICAL SYLLABUS REVISION (2ND YEAR) PRACTICAL MODEL TEST REVISION IPE/ EAPCET/NEET	
FEB 24	PRATICAL EXAMINATIONS - 1ST WEEK REVISION	24
MAR 23	INTERMEDIATE PUBLIC EXAMINATIONS (THEORY) 1ST WEEK OF MARCH LAST WORKING DAY 31-03-2026	23

Prepared by **T. SRINIVAS RAO** JL IN BOTANY
GOVERNMENT JUNIOR COLLEGE KACHEGUDA,
HYDERABAD DIST