Smt Sindhutai Jadhao Arts and Science Mahavidyalaya, Mehkar

B.Sc.III SEMESTAR V

BOTANY

Topic	Link for Material
Unit - I: Plant Water Relations	
Importance of water to plant life.	https://youtu.be/0YEPfvSU848
Importance of water to plant life. Imbibition ,	https://youtu.be/gxystGUpclc
Importance of water to plant life. Diffusion,	https://youtu.be/cghYxJr-wF0
Importance of water to plant life. Osmosis,	https://youtu.be/S6Q0_LvN7Xo
Importance of water to plant life.Plasmolysis	https://youtu.be/6g3xCTIitsU
Active Absorption of water	https://youtu.be/zkc7tOCs2wU
passive Absorption of water	https://youtu.be/_VhTjGoZzsc
Ascent of sap - Root Pressure	https://youtu.be/mRcCahCRntQ
Ascent of sap - Transpiration Pull Theory	https://youtu.be/aFvLb5LvTHQ
Transpiration - Types of transpiration	https://youtu.be/iwORYj5osqE
Stomatal movements,	https://youtu.be/EclTD5pibQQ
Mechanism of transpiration (Starch sugar hypothesis)	https://youtu.be/IqMhdiz1gxc
Significance of transpiration	https://youtu.be/1MkG15KMZwk
Antitranspirant,	https://youtu.be/Ifo_ModhhD0
Guttation	https://youtu.be/2wjw024jju4
Mineral uptake	https://youtu.be/mzGz5spadw8
Active uptake - Career Concept,Passive uptake - Ion Exchange.	https://youtu.be/nY3sJSJjQS8
Unit - II: Metabolism-	
Photosynthesis - Introduction,	https://youtu.be/8aXjHY4egrg
Role of Light, Photosynthetic Apparatus and Pigments, Two Pigment Systems,	https://youtu.be/f5g-T5uGudQ
Photophosphorylation, C3 and C4 cycle, CAM Pathway.	https://youtu.be/_mgz7tYpYGw
Respiration - Introduction,	https://youtu.be/tHL60NjZcsY
Mitochondria as a Respiratory centre,	https://youtu.be/craxJRS5JFQ
Types of Respiration - Aerobic and Anaerobic,	https://youtu.be/NieQFP3uoDM
Mechanism of aerobic respiration- Glycolysis	https://youtu.be/eRglCh2JnvU
Mechanism of aerobic respiration- Kreb cycl	https://youtu.be/kVazvG7aI90
Mechanism of aerobic respiration- Electron transport system	https://youtu.be/3I8RiUhu6mY
Mechanism of aerobic respiration-Chemiosmotic ATP generation,	https://youtu.be/tHL60NjZcsY
Respiratory Quotient.	https://youtu.be/EC07Zopm3fE
Unit - III: Metabolism and growth	
Nitrogen Metabolism- Sources of nitrogen,	https://youtu.be/LVxdoH9MLU4
Symbiotic nitrogen fixation,	https://youtu.be/E-1GI8VIqWQ
Role of Nitrate reductase.	https://youtu.be/ZfdnY-K13KE
Growth - Phases of growth,	https://youtu.be/xgPCeHtu9HU
Growth curve,	https://youtu.be/5fkg2JoAVIg
Physiological role of growth hormones (Auxins, Gibberellins, Cytokinins, Abscisic acid, and Ethylene).	https://youtu.be/YbxqHZjiun8
Physiology of Senescence and Abscission	https://youtu.be/ceX5ljc3Xlw
Unit – IV: Plant responses	
Photoperiodism - Concept of Florigen, Role of Phytochrome,	https://youtu.be/tifAaCZLJuU
Vernalization- Concept and Significance	https://youtu.be/bKCfs5Df70g
Plant movement- Tropic (Phototropic and Geotropic) and Nastic (Epinasty, Hyponasty and Seismonasty)	https://youtu.be/MRsOAnpkULc
	https://youtu.be/qdGBCihtfnI

Stress physiology- Concept,	https://youtu.be/ufdJEZhyNCM
Types of stress, Water and Salinity stress 1	https://youtu.be/iMSgZzQKWLw
Types of stress, Water and Salinity stress 2	https://youtu.be/66pQplA3bCQ
Types of stress, Water and Salinity stress 3	https://youtu.be/JRYbIEFvlLg
Unit – V: Ecology and Environment	
Concept of environment, Concept and scope of ecology.	https://youtu.be/49uPmRlPc4Y
Ecological factors- Climatic- Light, Temperature and Water	https://youtu.be/6KCNvIHB0yo
Atmosphere and its composition	https://youtu.be/XjXCLJw4Vv4
Edaphic factor- Process of soil formation, soil profile,soil biota and their role.	https://youtu.be/wQbU6KpJ7tQ
Ecological Adaptations	https://youtu.be/drFk5tdS6bA
Morphological and Anatomical adaptation in Hydrophytes,	https://youtu.be/y8TLE63ZBbM
Morphological and Anatomical adaptation in Xerophytes	https://youtu.be/uxUlRgFJRXc
Unit – VI: Ecosystem	
Population Ecology-	https://youtu.be/GaC_Oj6TER4
Natality and Mortality,	https://youtu.be/XrzAMWMuBrg
Community characteristics – Frequency, Density and Abundance	https://youtu.be/726gHYX86tI
Ecological Succession - Hydrosere and Xerosere	https://youtu.be/MU7SeepHuX4
Ecosystem – Definition, Structure and Function	https://youtu.be/z3pMdEpEoUE
Food chain, Food web	https://youtu.be/ZbT6aS_ORU0
Energy flow model (Single channel model)	https://youtu.be/_QPXBJ32gFA
Types of Ecosystem-	https://youtu.be/UobBlohNbWw
Pond ecosystem,	https://youtu.be/YhlHHUB4dQo
Desert ecosystem.	https://youtu.be/CCL1NXqjHsU