

Smt Sindhutai Jadhao Arts and Science Mahavidyalaya, Mehkar
B.Sc. II SEMESTAR III
BOTANY

Topic	Link for Material
UNIT I : Angiosperm Systematics and Biodiversity	
Angiosperms: Origin and Evolution (Pteridospermean and Bennititalean Theory)	https://youtu.be/AXiFvSHahWA
Botanical Nomenclature: Principles of rules, Taxonomic Ranks, Type concept, Valid publication.	https://youtu.be/bK5o38eeiug
Herbarium – Concept & significance, Royal Botanical Garden, Kolkata.	https://youtu.be/CK4vepuWzrM
Concept of biodiversity, Ex situ and In situ conservation	https://youtu.be/BfovM5yfono
Concept & importance of Biodiversity.	https://youtu.be/Z4_AChvHEBE
UNIT II: Angiosperm Systematics	
Systems of Classification: Bentham and Hooker's System, Engler and Prantle's system.	https://youtu.be/TTIGRcd_ju0
Systematic studies & economic importance of following Families Dicotyledons (Polypetalae) : Malvaceae, Brassicaceae, Leguminosae, Apiaceae	https://youtu.be/Go6_n4AZLIw
UNIT III: Angiosperm Systematics	
Systematic studies & economic importance of following Families Dicotyledons (Gamopetalae): Asteraceae,	https://youtu.be/Xk27nl71laM
Systematic studies & economic importance of following Families Dicotyledons (Gamopetalae): Asclepiadaceae,	https://youtu.be/OFVTUMoj6yw
Systematic studies & economic importance of following Families Dicotyledons (Gamopetalae): Asteraceae, Asclepiadaceae, Apocynaceae, Solanaceae, Verbenaceae, Lamiaceae.	https://youtu.be/wy40V3BRuog
Systematic studies & economic importance of following Families Dicotyledons (Gamopetalae): Apocynaceae,	https://youtu.be/vvFftJUKz2l
Dicotyledons (Monoclamydeae): Euphorbiaceae.	https://youtu.be/cGmOIY55FEw
Monocotyledons: Liliaceae, Poaceae.	https://youtu.be/drRStxQodZk
Types of Tissues: Meristematic – Types of meristems Permanent – Simple and complex	https://youtu.be/yDQKp5AGgCQ
Characteristics of growth rings, Sapwood and heartwood	https://youtu.be/LQyDIAiZ-GY
Anatomy of root: Primary structure in dicot and monocot root, normal secondary growth in dicot root	https://youtu.be/bbgwE-h84iE/
UNIT V: Anatomy	
Anatomy of stem: Primary structure in monocot and dicot stem, normal secondary growth in dicot stem.	https://youtu.be/BkUXGeyPu9M
Anomalies in primary structure in Boerhavia stem, secondary structure in Bignonia and Dracaena stem.	https://youtu.be/BrkfpPQAxJE
Leaf Anatomy: Internal structure in Nerium and Maize leaf.	https://youtu.be/84bjNn5bDj4
UNIT VI : Embryology	
Microsporangium, microsporogenesis, development of male gametophyte.	https://youtu.be/iM3OCsUqPLM

Megasporangium, types of ovules, megasporogenesis, development of female gametophyte (monosporic, Bisporic & tetrasporic).	https://youtu.be/iM3OCsUqPLM
Double fertilization and triple fusion.	https://youtu.be/udcPbGxxFpg
Embryo – Classification of embryo.	https://youtu.be/DPcSTA3EUE4
Endosperm types & significance, Suspended animation	https://youtu.be/EgiET_piGpA