



E-CONTENT

CLASS: B.Sc. FIRST YEAR (BOTANY)
CORE COURSE IN BOTANY (CCB)-II: TAXONOMY OF ANGIOSPERMS
(THEORY PAPER-IV)

Sr. No.	Name of Unit/ Topic	Link for E-content	Teacher Name
1.	Syllabus, POs & COs, Question paper pattern	link	Dr. S.S.Bodke
2.	Unit-I: Introduction	link	Dr. S.S.Bodke
3.	Unit-II: Plant Classification	link	Dr. S.S.Bodke
4.	Unit-III: Morphology of Angiosperms	link	Dr. S.S.Bodke
5.	Unit-IV: Study of plant families	link	Dr. S.S.Bodke

CLASS: B.Sc. SECOND YEAR (BOTANY)
CORE COURSE IN BOTANY (CCB)-III: PLANT ANATOMY
(THEORY PAPER-VI)

Sr. No.	Name of Unit/ Topic	Link for E-content			Teacher Name
		PPT	Video clip	Reading material	
	Unit-I: Meristematic Tissues	Link		Link	Dr. S.S.Bodke
1.	Syllabus, Los & Los, Question paper pattern with introduction, Different Botany courses	Link	Link , Link	Link , Link	Dr. S.S.Bodke
2.	Meristem: Introduction & Definition	Link	Link	Link , Link	Dr. S.S.Bodke
3.	Meristem: Cell differentiation	Link	Link	Link , Link	Dr. S.S.Bodke
4.	Meristem: Important features	Link	Link	Link , Link	Dr. S.S.Bodke
5.	Meristem: Classification	Link	Link	Link , Link	Dr. S.S.Bodke
6.	Meristem: Organization of RAM	Link	Link	Link	Dr. S.S.Bodke
7.	Meristem: Organization of SAM	Link	Link	Link	Dr. S.S.Bodke
8.	Theories regarding	Link		Link	Dr. S.S.Bodke



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Sr. No.	Name of Unit/ Topic	Link for E-content			Teacher Name
		PPT	Video clip	Reading material	
	organization of RAM & SAM				
9.	Question Bank			Link	Dr. S.S.Bodke
Unit-II: Tissue Systems in Plants					
10.	Simple tissues	Link , Link	Link , Link , Link	Link	Dr. S.S.Bodke
11.	Complex tissues	Link , Link	Link , Link	Link	Dr. S.S.Bodke
12.	Secretory tissues	Link , Link	Link , Link	Link	Dr. S.S.Bodke
13.	Adaptive and protective systems in plants	Link	Link	Link	Dr. S.S.Bodke
14.	Question Bank			Link	Dr. S.S.Bodke
Unit-III: Anatomy-I					
15.	Introduction, Vascular bundles	Link	Link , Link	Link	Dr. S.S.Bodke
16.	Root Anatomy-Primary structures dicot& monocot	Link	Link	Link	Dr. S.S.Bodke
17.	Stem Anatomy-Primary structures dicot& monocot	Link , Link	Link , Link	Link	Dr. S.S.Bodke
18.	Leaf Anatomy-Primary structures dicot& monocot	Link	Link , Link	Link	Dr. S.S.Bodke
19.	Primary growth in plants	Link	Link	Link	Dr. S.S.Bodke
20.	Question Bank			Link	Dr. S.S.Bodke
Unit-IV: Anatomy-II					
21.	Secondary growth Introduction	Link	Link	Link	Dr. S.S.Bodke
22.	Secondary growth in dicot root-Sunflower	Link	Link	Link	Dr. S.S.Bodke
23.	Secondary growth in dicot stem- Sunflower	Link , Link	Link , Link	Link	Dr. S.S.Bodke



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Sr. No.	Name of Unit/ Topic	Link for E-content			Teacher Name
		PPT	Video clip	Reading material	
			Link		
24.	Anomalous secondary growth in Dracaena stem	Link , Link	Link , Link	Link	Dr. S.S.Bodke
25.	Anomalous secondary growth in Achyranthes stem		Link	Link	Dr. S.S.Bodke
26.	Anomalous secondary growth in Mirabilis stem	Link	Link	Link	Dr. S.S.Bodke
27.	Anomalous secondary growth in Bignonia stem	Link	Link	Link	Dr. S.S.Bodke
28.	Wood Anatomy	Link , Link	Link	Link	Dr. S.S.Bodke
29.	Question Bank			Link	Dr. S.S.Bodke

CLASS: B.Sc. SECOND YEAR (BOTANY)
CORE COURSE IN BOTANY (CCB)-IV: PLANT EMBRYOLOGY
(THEORY PAPER-VIII)

Sr. No.	Name of Unit/ Topic	Link for E-content			Teacher Name
		Reading material	Video clip	PPT	
	Unit-I: Embryology	Link	link		Dr. S.S.Bodke
1.	Syllabus, POs & COs, Question paper pattern	Link	Link , Link	Link , Link	Dr. S.S.Bodke
2.	Introduction, Scope & Importance of embryology	Link	Link , Link	Link , Link	Dr. S.S.Bodke
3.	Contributors of Embryology	Link	Link , Link	Link , Link	Dr. S.S.Bodke
4.	Microsporangium	Link	Link	Link	Dr. S.S.Bodke
5.	Microsporogenesis	Link	Link	Link	Dr. S.S.Bodke
6.	Structure of Microspore	Link	Link , Link	Link	Dr. S.S.Bodke



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Sr. No.	Name of Unit/ Topic	Link for E-content			Teacher Name
		Reading material	Video clip	PPT	
7.	Revision of last studied topics			Link	Dr. S.S.Bodke
8.	Development of Male gametophyte	Link	Link	Link	Dr. S.S.Bodke
9.	Pollen Sterility	Link	Link	Link	Dr. S.S.Bodke
10.	Pollen embryo sac	Link	Link	Link	Dr. S.S.Bodke
11.	Pollen tube: Growth & guidance	Link	Link	Link	Dr. S.S.Bodke
12.	Pollen Storage	Link	Link	Link	Dr. S.S.Bodke
13.	Pollen Allergy	Link	Link	Link	Dr. S.S.Bodke
14.	Palynology	Link	Link	Link	Dr. S.S.Bodke
15.	Question Bank	Link			Dr. S.S.Bodke
Unit-II: Pollination Biology		link	link		Dr. S.S.Bodke
16.	Pollination Biology: Introduction	link	link , link	link , link	Dr. S.S.Bodke
17.	Self-pollination	link	link	link	Dr. S.S.Bodke
18.	Advantages & disadvantages of self-pollination	link	link	link	Dr. S.S.Bodke
19.	Self-pollination: Dichogamy	link	link	link	Dr. S.S.Bodke
20.	Self-pollination: Cleistogamy and other contrivances	link	link	link	Dr. S.S.Bodke
21.	Cross pollination	link	link	link	Dr. S.S.Bodke
22.	Contrivances of cross pollination	link	link , link , link	link , link , link , link	Dr. S.S.Bodke
23.	Pollinating agents	link	link , link , link	link , link , link	Dr. S.S.Bodke
24.	Lever mechanism of pollination in Salvia	link	link	link	Dr. S.S.Bodke
25.	Pollination Biology: Question Bank	link			Dr. S.S.Bodke
Unit-III: Megasporangium and Fertilization			link		Dr. S.S.Bodke



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Sr. No.	Name of Unit/ Topic	Link for E-content			Teacher Name
		Reading material	Video clip	PPT	
26.	Structure of an ovule	link	link , link	link	Dr. S.S.Bodke
27.	Types of ovule	link	link	link	Dr. S.S.Bodke
28.	Development of megaspore	link	link	link	Dr. S.S.Bodke
29.	Embryo sac-Structure	link	link	link	Dr. S.S.Bodke
30.	Polygonum type of embryo sac	link	link	link	Dr. S.S.Bodke
31.	Allium & Adoxa type of embryo sac	link	link	link	Dr. S.S.Bodke
32.	Double fertilization & triple fusion	link	link	link	Dr. S.S.Bodke
33.	Question Bank	link			Dr. S.S.Bodke
	Unit-IV: Embryo & Endosperm	link			Dr. S.S.Bodke
34.	Endosperm-Nuclear	link	link	link	Dr. S.S.Bodke
35.	Endosperm-Cellular	link		link	Dr. S.S.Bodke
36.	Endosperm-Helobial	link		link	Dr. S.S.Bodke
37.	Embryo-Introduction	link		link	Dr. S.S.Bodke
38.	Dicot embryo development	link		link	Dr. S.S.Bodke
39.	Monocot embryo development	link		link	Dr. S.S.Bodke
40.	Seed & Fruit development	link		link	Dr. S.S.Bodke
41.	Seeds-Endospermic & Non endospermic	link		link	Dr. S.S.Bodke
42.	Seed dispersal	link		link	Dr. S.S.Bodke
43.	Seed Germination	link		link	Dr. S.S.Bodke
44.	Question Bank-Unit-IV	link			Dr. S.S.Bodke
45.	Question Bank-Paper-VIII	link			Dr. S.S.Bodke



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CLASS: B.Sc. THIRD YEAR (BOTANY)
CORE COURSE IN BOTANY (CCB)-V: SYSTEMATIC BOTANY-I
(THEORY PAPER-XIII)

Sr. No.	Name of Unit/ Topic	Link for E-content	Link for PPT	Teacher Name
1.	Syllabus, POs & COs, Question paper pattern	link		Dr. S.S.Bodke
2.	Unit-I: Classification	link	link	Dr. S.S.Bodke
3.	Unit-II: Principles of taxonomy	link	link	Dr. S.S.Bodke
4.	Unit-III: Study of Dicot families-I (Polypetalae)	link	link	Dr. S.S.Bodke
5.	Unit-IV: Study of Dicot families-II (Gamopetalae)	link	link	Dr. S.S.Bodke

CLASS: B.Sc. THIRD YEAR (BOTANY)
CORE COURSE IN BOTANY (CCB)-VI: SYSTEMATIC BOTANY-II
(THEORY PAPER-XV)

Sr. No.	Name of Unit/ Topic	Link for E-content	Link for PPT	Teacher Name
1.	Syllabus, POs & COs, Question paper pattern	link		Dr. S.S.Bodke
2.	Study of monocot families-I	link	link	Dr. S.S.Bodke
3.	Study of monocot families-II	link	link	Dr. S.S.Bodke
4.	Taxonomic tools	link	link	Dr. S.S.Bodke
5.	Origin of Angiosperms	link	link	Dr. S.S.Bodke

CLASS: M.Sc. FIRST YEAR (BOTANY), SEMESTER-I
THEORY PAPER-III: TAXONOMY OF GYMNOSPERMS & ANGIOSPERMS

Sr. No.	Name of Unit/ Topic	Link for E-content	Teacher Name
Unit-I: Gymnosperms & Palaeobotany			
6.	Syllabus, POs & COs, Question paper pattern	link	Dr. S.S.Bodke
7.	General characters of gymnosperms	link	Dr. S.S.Bodke
8.	Classification of gymnosperms	link	Dr. S.S.Bodke
9.	Comparative account of living gymnosperms	link	Dr. S.S.Bodke



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Sr. No.	Name of Unit/ Topic	Link for E-content	Teacher Name
10.	General account of Fossil gymnosperms	link	Dr. S.S.Bodke
11.	Economic importance of gymnosperms	link	Dr. S.S.Bodke
12.	Fossils	link	Dr. S.S.Bodke
13.	Geological Time Scale (GTS)	link	Dr. S.S.Bodke
14.	Question Bank	link	Dr. S.S.Bodke
Unit-II: General Principles of Taxonomy			
15.	Aims, principles and structure of taxonomy	link	Dr. S.S.Bodke
16.	ICBN (ICN)	link	Dr. S.S.Bodke
17.	Species Concept	link	Dr. S.S.Bodke
18.	Origin-Cradle of Angiosperms	link	Dr. S.S.Bodke
19.	Theories of origin of Angiosperms	link	Dr. S.S.Bodke
20.	Origin-Time of origin of Angiosperms Abominable mystery	link	Dr. S.S.Bodke
21.	Origin-Time of origin of Angiosperms Continental Drift	link	Dr. S.S.Bodke
22.	Origin-Plant Speciation	link	Dr. S.S.Bodke
23.	Question Bank	link	Dr. S.S.Bodke
Unit-III: Plant Systematics			Dr. S.S.Bodke
24.	Linnaeus system of Classification of Angiosperms	link	Dr. S.S.Bodke
25.	Bentham & Hooker's system of Classification of Angiosperms	link	Dr. S.S.Bodke
26.	Engler & Prantl's system of Classification of Angiosperms	link	Dr. S.S.Bodke
27.	Cronquist's system of Classification of Angiosperms	link	Dr. S.S.Bodke
28.	APG-IV system of Classification of Angiosperms	link	Dr. S.S.Bodke
Study of Families of Angiosperms		link	Dr. S.S.Bodke
29.	Magnoliaceae	link	Dr. S.S.Bodke
30.	Annonaceae	link	Dr. S.S.Bodke
31.	Malvaceae	link	Dr. S.S.Bodke
32.	Caesalpiniaceae	link	Dr. S.S.Bodke
33.	Rosaceae	link	Dr. S.S.Bodke
34.	Cucurbitaceae	link	Dr. S.S.Bodke
35.	Apiaceae	link	Dr. S.S.Bodke
36.	Rubiaceae	link	Dr. S.S.Bodke



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Sr. No.	Name of Unit/ Topic	Link for E-content	Teacher Name
37.	Asteraceae	link	Dr. S.S.Bodke
38.	Apocynaceae	link	Dr. S.S.Bodke
39.	Acanthaceae	link	Dr. S.S.Bodke
40.	Verbenaceae	link	Dr. S.S.Bodke
41.	Nyctaginaceae	link	Dr. S.S.Bodke
42.	Euphorbiaceae	link	Dr. S.S.Bodke
43.	Monocot Families	link	Dr. S.S.Bodke
44.	Comparative account of Angiosperm families	link	Dr. S.S.Bodke
45.	Question Bank	link	Dr. S.S.Bodke
Unit-IV: Modern Trends of Taxonomy			Dr. S.S.Bodke
46.	Taxonomic evidences	link	Dr. S.S.Bodke
47.	Chemotaxonomy	link	Dr. S.S.Bodke
48.	Numerical Taxonomy	link	Dr. S.S.Bodke
49.	Molecular Systematics	link	Dr. S.S.Bodke
50.	Biosystematics	link	Dr. S.S.Bodke
51.	Question Bank	link	

CLASS: M.Sc. FIRST YEAR (BOTANY), SEMESTER-II
THEORY PAPER-IX: ECOLOGY, ENVIRONMENTAL BIOLOGY AND PHYTOGEOGRAPHY

Sr. No.	Name of Unit/ Topic	Link for E-content	Teacher Name
1.	Syllabus, POs & COs, Question paper pattern	link	Dr. S.S.Bodke
2.	Unit-I: Ecology	link	Dr. S.S.Bodke
3.	Unit-II: Population Ecology	link	Dr. S.S.Bodke
4.	Unit-III: Environmental Biology	link	Dr. S.S.Bodke
5.	Unit-IV: Phytogeography	link	Dr. S.S.Bodke
6.	Practicals based on Paper-III& IX	link	Dr. S.S.Bodke



Shri Sharda Bhavan Education Society's
YESHWANT MAHAVIDYALAYA, NANDED
DEPARTMENT OF BOTANY & HORTICULTURE
(Under Graduate, Post Graduate and Research Centre)



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CLASS: M.Sc. SECOND YEAR (BOTANY), SEMESTER-III
THEORY PAPER-XIV: ANGIOSPERM-II
(PLANT STRUCTURE & REPRODUCTIVE BIOLOGY)

Sr. No.	Name of Unit/ Topic	Link for E-content	Teacher Name
1.	Syllabus, POs & COs, Question paper pattern	link	Dr. S.S.Bodke
2.	Unit-I: Plant Anatomy-I	link	Dr. S.S.Bodke
3.	Unit-II: Plant Anatomy-II	link	Dr. S.S.Bodke
4.	Unit-III: Reproductive Biology-I	link	Dr. S.S.Bodke
5.	Unit-IV: Reproductive Biology-II	link	Dr. S.S.Bodke