

## Teaching Programme 2015-2016

Class : F.Y.B.Sc.

Semester: I

Subject: Botany Paper Title : **PLANT ANATOMY AND EMRYOLOGY**

Paper Code: **BOT. II.C-3**

Lect No.	Day	Date	Topic	Reference
<b>1</b>		November		
<b>2</b>	1	Monday	<b>UNIT I: Shoot Development</b> Organization of Shoot apical meristem Apical cell theory, Histogen theory, Tunica-	Esau, K. (1977). Plant Anatomy, 2 <sup>nd</sup> Edition. Wiley Eastern Private Limited. New Delhi. Fahn, A. (1982). Plant Anatomy (3 <sup>rd</sup> edition). Pergoman Press, Oxford. John Jothi Prakash, E. (1987). A Text Book of Plant Anatomy. Pandey, B.P. (1981). A textbook of Botany Angiosperms. S. Chand and Co., New Delhi.
<b>3</b>	2	Tuesday		
<b>4</b>	3	Wednesday		
	4	Monday		
<b>5</b>	5	Tuesday	<b>UNIT II: Root Development</b> Organization of root apical meristem Apical cell theory, Histogen theory, Korper-Kappe theory, Quiescent centre	Esau, K. (1977). Plant Anatomy, 2 <sup>nd</sup> Edition. Wiley Eastern Private Limited. New Delhi. Fahn, A. (1982). Plant Anatomy (3 <sup>rd</sup> edition). Pergoman Press, Oxford. John Jothi Prakash, E. (1987). A Text Book of Plant Anatomy. Pandey, B.P. (1981). A textbook of Botany Angiosperms. S. Chand and Co., New Delhi.
<b>6</b>	6	Wednesday		
<b>7</b>	7	Monday		
<b>8</b>	8	Tuesday		
<b>9</b>	9	Wednesday	<b>UNIT III: Leaf Development and Phyllotaxy</b> Initiation of leaf primordia` Differentiation of epidermis, mesophyll and vascular Tissue Stomata and its diversity Leaf phyllotaxy, leaf abscission	1
<b>10</b>	10	Monday		
<b>11</b>	11	Tuesday		
<b>12</b>	12	Wednesday		
<b>13</b>	13	Monday		
<b>14</b>	14	Tuesday		
<b>15</b>	15	Wednesday	<b>UNIT IV: Wood Structure</b> Vascular cambium Secondary xylem, wood anatomy Secondary phloem and Periderm Conifer wood Dicotyledon wood,	Esau, K. (1977). Plant Anatomy, 2 <sup>nd</sup> Edition. Wiley Eastern Private Limited. New Delhi. Fahn, A. (1982). Plant Anatomy (3 <sup>rd</sup> edition). Pergoman Press, Oxford. John Jothi Prakash, E. (1987). A Text Book of Plant Anatomy. Pandey, B.P. (1981). A textbook of
<b>16</b>	16	Monday		
<b>17</b>	17	Tuesday		
<b>18</b>	18	Wednesday		
<b>19</b>	19	Monday		
<b>20</b>	20	Tuesday		
<b>21</b>	21	Wednesday		

			Identification of wood	Botany Angiosperms. S. Chand and Co., New Delhi.
22	21	Monday		Bhojwani, S. S and Bhatnagar, S.P.
22	22	Tuesday	<b>UNIT V: Transition of</b>	The Embryology of Angiosperms,
23	23	Wednesday	<b>Flowering</b>	Vikas Publishing
24	24	Monday	Floral development: Induction	House Pvt. Ltd., New Delhi.
25	25	Tuesday	of flowering, Floral	Dwivedi. J.N. (1988). Embryology of
26	26		meristems	Angiosperms. Rastogi and Co.
27	27		Origin and development of	Meerut.
			floral parts and floral	Maheswari, P. (1971). An
			development in <i>Arabidopsis</i>	Introduction to the Embryology of
			and <i>Antirrhinum</i>	Angiosperms. Tata McGra
			ABC model of flowering	
28	28	Wednesday	<b>Unit-VI:</b>	
29	29	Monday	Structure and development of	Bhojwani, S. S and Bhatnagar, S.P.
30	30	Tuesday	male	The Embryology of Angiosperms,
31	31	Monday	gametophytemicrosporangium	Vikas Publishing
		Tuesday	Microsporogenesis & Pollen	House Pvt. Ltd., New Delhi.
		Wednesday	grains	Dwivedi. J.N. (1988). Embryology of
			Structure and development	Angiosperms. Rastogi and Co.
			female gametophyte –	Meerut.
			Megasporangium	Maheswari, P. (1971). An
			Megasporogenesis, Forms of	Introduction to the Embryology of
			ovule-Monosporic,	Angiosperms. Tata McGra
			bisporic and Tetrasporic	
		Monday	<b>UNIT VII: Pollination and</b>	Bhojwani, S. S and Bhatnagar, S.P.
32		Tuesday	fertilization	The Embryology of Angiosperms,
33		Wednesday	Mechanism of pollination and	Vikas Publishing
34		Monday	fertilization- types of	House Pvt. Ltd., New Delhi.
35		Tuesday	pollination, germination of	Dwivedi. J.N. (1988). Embryology of
36		Wednesday	pollen grain, pollen pistil	Angiosperms. Rastogi and Co.
37		Monday	interaction, self-	Meerut.
38		Tuesday	incompatibility	Maheswari, P. (1971). An
39		Wednesday	Double fertilization and	Introduction to the Embryology of
40		Monday	endosperm formation	Angiosperms. Tata McGra
41		Tuesday	Apomixis: Types, causes,	
42		Wednesday	consequences and	
43		Monday	Significances of apomixis	
44		Tuesday	Polyembryony: Classification,	
45			causes, experimental	
			induction and importance	