

DEPARTMENT OF BOTANY
Teaching Plan 2022-23 (Odd Semester)
Sem III
Dr Pratibha Thakur

Course : B.Sc. Life Science 2nd Year, Sem. III
Paper : Plant Anatomy and Embryology – PRACTICAL (Group 5)
(Session : 26th August to 13th December, 2022)

Name of Paper & Code	Allocation of Lectures	Month wise schedule	Reading suggestions
1. Introduction Study of meristems through permanent slides and photographs.	4	26 th Aug. – 4 th Sep.	1. Fahn, A. (1982). <i>Plant anatomy</i> .
2. Tissues (parenchyma, collenchyma and sclerenchyma); Macerated xylary elements, Phloem (Permanent slides, photographs)	8	5 th Sep. – 19 th Sep.	2. Mauseth, J.D. (1988). <i>Plant Anatomy</i> .
3. Stem: Monocot: <i>Zea mays</i> ; Dicot: <i>Helianthus</i>	4	20 th Sep. – 26 th Sep.	3. Dickison, W.C. (2000). <i>Integrated Plant anatomy</i> . 4. Bhojwani, S.S., Bhatnagar, S.P., Dantu P. K. (2015). <i>Embryology of Angiosperms</i> , 6 th edition.
4. Root: Monocot: <i>Zea mays</i> ; Dicot: <i>Helianthus</i>	4	27 th Sep. – 10 th Oct.	
5. Leaf: Dicot and Monocot (only permanent slides).	4	11 th Oct. – 17 th Oct.	
6. Adaptive anatomy: Xerophyte (<i>Nerium</i> leaf); Hydrophyte (<i>Hydrilla</i> stem).	4	18 th Oct. – 24 th Oct.	
7. Structure of anther (young and mature).	4	25 th Oct. – 31 st Oct.	
8. Types of ovules: anatropous, orthotropous, circinotropous, amphitropous/ campylotropous.	4	1 st Nov. – 7 th Nov.	
9. Female gametophyte: Polygonum (monosporic) type of Embryo sac (Permanent slides/photographs).	4	8 th Nov. – 14 th Nov.	
10. Pollination types and seed dispersal mechanisms (including appendages, aril, caruncle) Photographs/specimens).	8	15 th Nov. – 28 th Nov.	
11. Dissection of embryo/endosperm from developing seeds.	8	29 th Nov. – 5 th Dec.	
12. Calculation of percentage of germinated pollen in a given medium.	8	6 th Dec. – 12 th Dec.	
Revision Mock Exam		1 st Dec. – 13 th Dec.	