

Class: B.Sc. I Year

Subject: BOTANY

Periods per week: Theory

Weeks (Total): 15.

Semester: II

Paper No: IV (Diversity of Cryptogams)

| WEEKS | TOPICS TO BE COVERED |
|-------|--|
| 1 | General Characters of Bryophytes, External and Internal Classification as per G.M. Smith, Systematic position etc. |
| 2 | General Characters of Hepaticopsida, Study of Marchantia Occurrence, external and internal morphology. |
| 3 | Reproduction in Marchantia , vegetative, asexual and sexual reproduction structure of sporophyte. |
| 4 | General Characters of Bryopsida- Funaria - Occurrence, external and internal morphology. |
| 5 | Vegetative, asexual and sexual reproduction structure of Sporophyte. |
| 6 | General Characters of Pteridophytes Classification as per G.M. Smith upto class. |
| 7 | Psilotum - Occurrence, external and internal morphology, asexual and sexual reproduction. |
| 8 | Lycopodium - Occurrence, external and internal morphology, asexual |
| 9 | Lycopodium contd... sexual reproduction. Structure of Gametophyte. |
| 10 | Selaginella : Occurrence, external and internal morphology, Vegetative reproduction. |
| 11 | Selaginella : Asexual and sexual reproduction, structure of strobilus, graphical representation of life cycle. |
| 12 | Equisetum : Occurrence, external and internal morphology, types of stele, Hydrophytic and Xerophytic characters. |
| 13 | Equisetum contd...structure of strobilus, Sexual reproduction and structure of Gametophyte. Marselia : Occurrence. |
| 14 | Marselia contd...external and internal morphology asexual reproduction. |
| 15 | Marselia contd... Structure of Sporocarp and Sexual Reproduction. |

Dr. S.M. Quazi.

Class : B.Sc. I
 Subject : BOTANY
 Periods per week : Th. _____
 Weeks (Total) : 15

Semester II
 Paper No:V
 Pr. _____

| WEEK | Topic to be covered |
|------|---|
| 1 | Study of stamen and T.S. of Anther. Practicals:- Study of Marchantia. Study of Meristematic tissues. |
| 2 | Development of male gametophyte. Practicals:- Study of Funaria. Study of permanent tissues. |
| 3 | Study of Ovules and development of female gametophyte. Practicals:- Study of Psilotum. Mounting of stomata. |
| 4 | Study of pollination types. Practicals:- Study of Lycopodium. Study of Dicot and Monocot Root. |
| 5 | Study of pollination Agencies and fertilization. Practicals:- Study of Selaginella. Study of Dicot and Monocot Stem. |
| 6 | Study of Embryo. Practicals:- Study of Equisetum. Study of Dicot and Monocot Leaf. |
| 7 | Study of Endosperm. Practicals:- Study of Dicot and Monocot ovules and seed |
| 8 | Study of Dicot and Monocot seeds, roots. Practicals:- Demonstration of preparation of permanent slides. |
| 9 | Study of Dicot and Monocot leaf. Practicals:- Preparation of permanent slides Monocot root. |
| 10 | Study of Wood anatomy. Practicals:- Preparation of permanent slides Monocot stem. |
| 11 | Study of Periderm. Practicals:- Preparation of permanent slides Monocot leaf. |
| 12 | Study of Secondary growth in sunflower. Practicals:- Preparation of permanent slides Dicot root. |
| 13 | Comparison of primary and secondary growth. Practicals:- Preparation of permanent slides Dicot stem. |
| 14 | Revision of the syllabus.. Practicals:- Preparation of permanent slides Dicot leaf. |
| 15 | Question paper pattern. Practicals:- Identification of collected material, preparation of excursion and field report.. |

Dr. Rafiuddin Naser.