

Syllabus, B. Sc. First Semester Botany (Minor Paper)
Title of the Paper: ELEMENTORY BOTANY AND MICROBIOLOGY

Unit I

1. Introduction to Botany and its scope
2. General characteristics of plants
3. Basic structure of Plant cell
4. Cell organelles and their function

Unit II

1. Root: Types and functions
2. Stem: Types and modification
3. Leaf: Parts and types
4. Flower and its parts
5. Fruits and seeds

Unit III

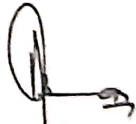
1. Algae: Introduction and features
2. Bryophytes: Basic characters
3. Pteridophytes: General Characteristics
4. Gymnosperms: Basic characters and their Economic Importance

Unit IV

1. Introduction to Microbiology
2. Bacteria: Structure and importance
3. Fungi: General characters and importance
4. Viruses: Structure of TMV and Bacteriophage
5. Useful and harmful microorganisms


18.9.2026
DR. ABDULLAH
(Convener)


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Syllabus, B. Sc. Third Semester Botany (Minor Paper)

Title of the Paper: INTRODUCTION TO TAXONOMY AND PLANT RESOURCES

Unit I

1. Definition, scope and importance of plant taxonomy
2. Basic concepts of classification and its Types
3. Taxonomic Categories and Hierarchy: Species, Genus, Family, Order, Class and Division
4. Binomial Nomenclature and its basic rules
5. Herbarium: Definition, Preparation and Importance

Unit II

1. Sources of taxonomic information
2. Morphological characters used in plant identification
3. Floral characters and their importance in taxonomy
4. Characteristics of Angiospermic families: Brassicaceae, Asteraceae, Solanaceae, Cucurbitaceae and Poaceae

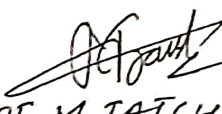
Unit III:

1. Classification of plant resources based on their uses
2. Food plants: Cereals, Pulses, Fruits and Vegetables
3. Oil-yielding plants: Mustard, Groundnut and Sunflower
4. Fibre-yielding plants: Cotton, Jute and Sunhemp
5. Medicinal and Aromatic plants: Tulsi, Neem, Ashwagandha and Giloy
6. Timber yielding plants: Shesham, Teak, Pine and Saal

Unit IV:

1. Threats to plant resources: Habitat Destruction, Overexploitation, Pollution and Climate Change
2. In-situ and Ex-situ conservations
3. Sustainable utilization of plant resources


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