

DEPARTMENT OF BOTANY

WEEK WISE LESSON PLAN, Odd Semester 2023-2024 (NEP)

Name of Teacher: Shilpa Dhiman

Class and Section: B. Sc. I (Life Science) 1st Semester

Subject: BOTANY (Paper II)

Week wise Lesson Plan for the month August 2023

Weeks	Topics
Week 2	Bacteria: Structure ,nutrition ,reproduction and economic importance General account of Viruses including structure of TMV and Bacteriophage
Week 3	Algae: General characters, classification and Economic importance and Life Cycle of Nostoc, Volvox and Vaucheria
Week 4	Economic importance and Life Cycle of Ectocarpus and Polysiphonia
Week 5	General account of Lichens: types ecological and economic importance

Week wise Lesson Plan for the month September 2023

Week	Topics
Week 2	Fungi: General characters, economic importance and life history of Phytophthora
Week 3	Fungi: General characters, economic importance and life history of Penicillium, Puccinia and Colletotrichum
Week 4	Bryophyta: General Characters, Classification ,Alternation of generations, Structure and Reproduction of Marchantia
Week 5	Class Test/ audio video demonstration



Week wise Lesson Plan for the month October 2023

Week	Topics
Week 1	Structure and reproduction of Anthoceros and Funaria Ecological and economic importance
Week 2	Pteridophyta : General characters and classification upto classes Heterospory and seed Habit
Week 3	Stelar Evolution, Structure and reproduction of Rhynia Structure and Reproduction of Selaginella
Week 4	Structure and Reproduction of Equisetum and Pteris

Week wise Lesson Plan for the month November 2023

Week	Topics
Week 1	Ecological and economic importance of Pteridophytes
Week 2	Gymnosperms: General characters and classification upto classes Geological Time scale
Week 3	DIWALI VACATIONS
Week 4	Class Test/ audio video demonstration
Week 5	Morphology ,Anatomy and Reproduction of Cycas

Week wise Lesson Plan for the month December 2023

Week	Topics
Week 1	Morphology ,Anatomy and Reproduction of Pinus
Week 2	Morphology ,Anatomy and Reproduction of Ephedra
Week 3	Distribution and Economic importance of Gymnosperms General account of Palaeobotany
Week 4	Class Test/ audio video demonstration

DEPARTMENT OF BOTANY

WEEK WISE LESSON PLAN, Odd Semester 2023-2024

Name of Teacher: Shilpa Dhiman

Class and Section: B. Sc. MEDICAL, 3rd Semester

Subject: BOTANY (Paper II)

Week wise Lesson Plan for the month August 2023

Weeks	Topics
Week 2	Introduction to Syllabus Diversity in plant forms-annuals, biennials and perennials Tissues-meristematic and permanent
Week 3	Simple and Complex types of Tissue The Shoot system-shoot apical meristem and its histological organizations
Week 4	Monocot and Dicot stem Sap wood and heart wood, Periderm
Week 5	Anomalous secondary growth 1. Dracaena 2. Boerhaavia 3. Achyranthes

Week wise Lesson Plan for the month September 2023

Week	Topics
Week 2	Cambium-structure and function Class test/ audio video demonstration
Week 3	Secondary growth in dicot stem characteristics of growth rings
Week 4	Leaf-Types of leaves (simple and compound);
Week 5	Phyllotaxy Epidermis-uniseriate and multiseriate,

Week wise Lesson Plan for the month October 2023

Week	Topics
Week 1	Epidermal appendages and their morphological types
Week 2	Anatomy of typical Monocot and Dicot leaf and cell inclusions in leaves
Week 3	Leaf abscission. Stomatal apparatus and their morphological types
Week 4	Class test/ Audio video demonstration . Diwali vacations

Week wise Lesson Plan for the month November 2023

Week	Topics
Week 1	Root system- the root apical meristem:
Week 2	Histological organization (monocot and dicot root
Week 3	Secondary growth in dicot root Structural modifications in roots- storage (Beta), Respiratory (Rhizophora), Epiphytic (Vanda)
Week 4	Revision
Week 5	Examinations

DEPARTMENT OF BOTANY

CLASS AND SECTION: **B. SC.I(LIFE SCIENCE), 2ND SEMESTER(NEP)**

SESSION 2023-24 Even sem


SUBJECT: BOTANY

Week wise Lesson Plan for the month February 2024

Weeks	Topics
Week 3	Botanical Nomenclature and major rules of ICBN
Week 4	keys to identification of plants, Introduction and importance of Herbaria, botanical gardens
Week 5	Documentation of floristic Diversity: brief idea of Floras, monographs, and journals Brief idea of Taxonomic evidences

Week wise Lesson Plan for the month March

Week	Topics
Week 2	Types of inflorescence, flower and parts of flower Artificial, natural and Phylogenetic systems of classification
Week 3	Bentham and Hooker system of classification Angiosperm Phylogeny groups
Week 4	Diagnostic features and economic importance of Ranunculaceae, Brassicaceae and Malvaceae, Euphorbiaceae and Rutaceae
Week 5	HOLI HOLIDAYS



Week wise Lesson Plan for the month April 2024

Week	Topics
Week 1	Diagnostic features and economic importance of Leguminosae, Apocynaceae, Lamiaceae, Solanaceae and Poaceae
Week 2	Ecology :definitions, scope and importance Levels of organization Climatic and Edaphic factors
Week 3	Class test Topographic and Biotic factors Population Ecology: concept, biotic potential, growth curves, ecotypes and ecads
Week 4	Community ecology: concept, characteristics , methods of analysis and Ecological Succession

Week wise Lesson Plan for the month May 2024

Week	Topics
Week 1	Ecosystem : structure and functions (food chains, food web, trophic levels, energy flow and ecological pyramids)
Week 2	Phytogeographical regions of India, Vegetation types of India Environmental pollution: sources types and controls of air and water pollution
Week 3	Topographic and Biotic factors Population Ecology: concept, biotic potential, growth curves, ecotypes and ecads
Week 4	Green houseeffect and green house gases.impacts of global warming and carbon trading Biodiversity: types levels, significance, threats and conservation
Week 5	Revision

DEPARTMENT OF BOTANY

Class and Section: **B. Sc. MEDICAL, 4th Semester**

Session 2023-24

Subject: **BOTANY (Paper II) Plant Embryology**

Week wise Lesson Plan for the month January 2024

Weeks	Topics
Week 2	Introduction to Plant Embryology
Week 3	Structure of flower and its various floral parts Flower as modified shoot
Week 4	Process of microsporogenesis Pollen grain and its structure
Week 5	Pollen pistil interaction Self incompatibility, Pollination and its various types

Week wise Lesson Plan for the month February 2024

Week	Topics
Week 2	Pollen germination or microgametogenesis Male gametophyte
Week 3	Structure of megasporangium and various types of ovules
Week 4	Double fertilization Endosperm and its importance
Week 5	Megasporogenesis and megagametogenesis Structure of female gametophyte

Week wise Lesson Plan for the month March

Week	Topics
Week 2	Class Test / Audio video demonstration
Week 3	Structure of female gametophyte Embryogenesis in monocots Polyembryony
Week 4	Double fertilization Endosperm and its importance
Week 5	HOLI HOLIDAYS

Week wise Lesson Plan for the month April 2024

Week	Topics
Week 1	Structure of monocot seed Class Test/Assignments
Week 2	Structure of dicot seed Fruit and its various types Dispersal mechanisms in fruits
Week 3	Dispersal mechanisms in seeds
Week 4	Revision of the whole syllabus <ul style="list-style-type: none">• Through audio-visual practice• Specimen and slide study• Group discussion• Seminars and power point presentations• Oral and written tests