

Lesson Plan (2020-21)

Name of Assistant/Associate Professor: ~~Mg. N. N. N.~~ *Naina*

Class: **B.Sc III Sem. 5**

Subject: **Botany (Paper 502L)**

Lesson Plan: **Nov. 2020- Feb.2021**

November 2020	
Week of Month	Topic Covered
Week 1 (19 Nov.- 21 Nov.)	Introduction to D.N.A. with some historic perspective
Week 2 (26 Nov.- 28 Nov.)	Experiments to prove D.N.A as genetic material
Week 3 (3 Dec. - 5 Dec.)	Watson and Crick model: Structure of D.N.A., Types of D.N.A
Week 4 (10 Dec.- 12 Dec.)	Chemical analysis of D.N.A.
Week 5 (17 Dec.- 19 Dec.)	D.N.A. Replication
Week 6 (24 Dec.- 26 Dec.)	Replication in Prokaryotes
Week 7 (31 Dec - 2 Jan.)	Enzymatic machinery in replication
Week 8 (7 Jan. - 9 Jan.)	Structure and types of R.N.A.
Week 9 (14 Jan. - 16 Jan.)	Transcription in Prokaryotes: Prokaryotic R.N.A. Polymerase
Week 10 (21 Jan. - 23 Jan.)	Transcription in Eukaryotes: Eukaryotic R.N.A. Polymerase
Week 11 (28 Jan. - 30 Jan.)	Genetic Code and its Characteristics
Week 12 (4 Feb. - 6 Feb.)	Ribosome Structure, Charging of tRNA + Assignment (a)
Week 13 (11 Feb. - 13 Feb.)	Prokaryotic and eukaryotic translation, Regulation of gene expression in prokaryotes
Week 14 (18 Feb. - 20 Feb.)	Introduction to gel electrophoresis
Week 15 (25 Feb. - 27 Feb.)	PCR and its variants, Applications, Microscopy: Principles and types


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Lesson Plan (2020-21)

Name of Assistant/Associate Professor: Ms. Naina

Subject: Botany (Paper 302L)

Class: B.Sc. 2nd

Lesson Plan: Nov. 2020- Feb.2021

November 2020	
Week of Month	Topics to be Covered
Week 1 (20 Nov.- 21 Nov.)	Structure of anther and Dehiscence
Week 2 (27 Nov.- 28 Nov.)	Microsporogenesis and Pollen grain
Week 3 (4 Dec. - 5 Dec.)	Walls of anther , male gametophyte
Week 4 (11 Dec.- 12 Dec.)	Structure and types of ovules
Week 5 (18 Dec.- 19 Dec.)	Types of embryo sacs and its ultrastructure
Week 6 (25 Dec.- 26 Dec.)	Types of placentation,
Week 7 (1 Jan. - 2 Jan.)	Pollination and Adaptation
Week 8 (8 Jan. - 9 Jan.)	Double fertilization,
Week 9 (15 Jan. - 16 Jan.)	Seed Structure appendages
Week 10 (22 Jan. - 23 Jan.)	Dispersal mechanism
Week 11 (29 Jan. - 30 Jan.)	Structure, functions and types of endosperm
Week 12 (5 Feb. - 6 Feb.)	Monocot and dicot embryo + Assignment 1
Week 13 (12 Feb. - 13 Feb.)	Embryo-endosperm relationship
Week 14 (19 Feb. - 20 Feb.)	Revision
Week 15 (26 Feb. - 27 Feb.)	Class test


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Lesson Plan (2020-21)

Name of Assistant/Associate Professor: Ms. Naina

Subject: Botany (Paper 307L)

Class: B.Sc. 2nd

Lesson Plan: Nov. 2020- Feb.2021

November 2020	
Week	Topics to be Covered
Week 1 (18 Nov.- 20 Nov.)	Plant diversity and its scope
Week 2 (25 Nov.- 27 Nov.)	Plant diversity at different levels
Week 3 (2 Dec. - 4 Dec.)	Values and uses of biodiversity
Week 4 (09 Dec.- 11 Dec.)	Loss of biodiversity
Week 5 (16 Dec.- 18 Dec.)	Management of Plant biodiversity
Week 6 (23 Dec.- 25 Dec.)	IUCN, UNEP, UNESCO
Week 7 (30 Dec. - 1 Jan.)	WWF, NBGER+ Assignment 1.
Week 8 (6 Jan. - 8 Jan.)	Biodiversity legislation and Conservation
Week 9 (13 Jan. - 15 Jan.)	Biodiversity Information management and communication
Week 10 (20 Jan. - 22 Jan.)	Conservation of biodiversity: <i>In-situ</i> & <i>Ex-situ</i>
Week 11 (27 Jan. - 29 Jan.)	Social approaches to conservation + Unit test
Week 12 (3 Feb. - 5 Feb.)	Biodiversity awareness programme, sustainable development
Week 13 (10 Feb. - 12 Feb.)	Importance of Forestry their utilization and Commercial aspects
Week 14 (17 Feb. - 19 Feb.)	Fruit and Nuts + Assignment 2
Week 15 (24 Feb. - 26 Feb.)	Wood and its uses


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Lesson Plan (2020-21)

Name of Assistant/Associate Professor: Ms. Naina

Subject: Botany (Paper 101L)

Class: B.Sc. 1st

Lesson Plan: Nov. 2020- Feb.2021

Weeks	Topic to be covered
Week 1 (16 Nov.- 18 Nov.)	Introduction to Viruses, Discovery and General Characteristics
Week 2 (23 Nov.- 25 Nov.)	Classification Of viruses, Life cycle of Phages
Week 3 (30 Nov.- 2 Dec.)	RNA Viruses (TMV) & Economic Importance of Viruses
Week 4 (7 Dec.- 9 Dec.)	Introduction to Bacteria, general Characteristics
Week 5 (14 Dec.- 16 Dec.)	Cell structure and reproduction in Bacteria: Vegetative, asexual.
Week 6 (21 Dec.- 23 Dec.)	Conjugation, Transformation and Transduction
Week 7 (2 Dec.- 23 Dec.)	Economic Importance of Bacteria + Class test
Week 8 (28 Dec.- 30 Dec.)	Introduction & General Characteristic of Algae
Week 9 (4 Jan. - 6Jan.)	Classification of Algae (Lee, 1980), Range of thallus organisation
Week 10 (4 Jan. - 6 Jan.)	Reproduction in Algae, Life Cycle of <i>Volvox</i> , <i>Nostoc</i> + Assignment 1
Week 11 (11Jan. - 13 Jan.)	Life Cycle of <i>Oedogonium</i> , <i>Polysiphonia</i> , <i>Ectocarpus</i>
Week 12 (18Jan. - 20 Jan.)	Economic Importance of Algae & Introduction to Fungi, its economic Importance
Week 13 (25 Jan. - 27Jan.)	Morphology and life cycle of, <i>Puccinia</i>
Week 14 (1 Feb. - 3Feb.)	Morphology and life cycle of <i>Agaricus</i>
Week 15 (1 Feb. - 3Feb.)	Causal Organism Symptoms and control of Rust of Wheat, white rust of crucifers, late blight, red rot of sugarcane
Week 16 (1 Feb. - 3Feb.)	Lichen general account and Significance
Week 17 (8Feb. - 10 Feb.)	Morphology and life cycle of <i>Rhizopus</i> , <i>Penicillium</i>
Week 18 (15 Feb.- 17 Feb.)	Morphology and life cycle of <i>Colletotricum</i>
Week 19 (22Feb.- 24 Feb.)	Revision


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