

## Lesson plan for the odd semester July to November, 2019

**Name of College-** KVA DAV College for Women, Karnal  
**Name of Assistant Professor:** DR. ASHIMA GAKHAR  
**Class and Section:** B.Sc. II, SEMESTER III  
**Subject:** BOTANY-II: Plant Anatomy

July,2019 3 <sup>rd</sup> Week	<b>Unit –I</b> Diversity in Plant Forms : annual , biennials and perennials
4 <sup>th</sup> Week	Meristematic Tissues
5th Week	Permanent Tissues
August,2019 1 <sup>st</sup> Week	The Shoot System: Shoot apical meristem and its histological organizations- Monocot stem
2 <sup>nd</sup> Week	Dicot stem, Cambium –structure and functions.
3 <sup>rd</sup> Week	Secondary growth in Dicot stem ,Growth rings ,Sap wood and Heart wood ,Periderm
4 <sup>th</sup> Week	Anomalous secondary growth : Dracaena ,Boerhaavia and Achyranthes
5 <sup>th</sup> Week	Types of leaves and phyllotaxy
September, 2019 1 <sup>st</sup> Week	Epidermis and epidermal appendages

2 <sup>nd</sup> Week	Anatomy of Monocot and Dicot leaves
3 <sup>rd</sup> Week	Cell inclusions in leaves and leaf abscission
4 <sup>th</sup> Week	Stomatal apparatus and their morphological types
October,2019 1 <sup>st</sup> Week	<b>Sessionals</b>
2 <sup>nd</sup> Week	Root system ,Histological organization of Monocot and Dicot root
3 <sup>rd</sup> Week	Secondary growth in Dicot root
4 <sup>th</sup> Week	<b>Vacations w. e. f. from October 24<sup>th</sup> to 30<sup>th</sup> October ,2019</b>
Nov,2019 1 <sup>st</sup> Week	Structural modification in roots : storage , respiratory and epiphytic root
2 <sup>nd</sup> Week	Revision of Syllabus

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**Name of College-** KVA DAV College for Women, Karnal  
**Name of Assistant Professor:** DR. ASHIMA GAKHAR  
**Class and Section:** B.Sc. III, SEMESTER V  
**Subject:** BOTANY-II : Ecology

July,2019 3 <sup>rd</sup> Week	<b>Unit-I</b> Introduction To Ecology: Definition, Scope & Importance
4 <sup>th</sup> Week	Environmental Factors: Water, Humidity and Wind
5th Week	Environmental Factors: Temperature and Light
August,2019 1 <sup>st</sup> Week	Environmental Factors: Edaphic
2 <sup>nd</sup> Week	Environmental Factors: Biotic
3 <sup>rd</sup> Week	Ecological Adaptation: Adaptations to Water Stress & Salinity: Hydrophytes
4 <sup>th</sup> Week	Ecological Adaptation: Adaptations to: Xerophytes, Halophytes
5 <sup>th</sup> Week	Population Ecology
September, 2019 1 <sup>st</sup> Week	<b>Unit II:</b> Community Ecology: Concepts and Characteristics

2 <sup>nd</sup> Week	Ecosystem
3 <sup>rd</sup> Week	Biogeochemical Cycles
4 <sup>th</sup> Week	Phytogeography : Regions of India
October,2019 1 <sup>st</sup> Week	<b>Sessionals</b>
2 <sup>nd</sup> Week	Environmental Pollution: Air
3 <sup>rd</sup> Week	Environmental Pollution: Water
4 <sup>th</sup> Week	<b>Vacations w. e. f. from October 24<sup>th</sup> to 30<sup>th</sup> October ,2019</b>
Nov,2019 1 <sup>st</sup> Week	Global Change: Green House Effect & Green House Gases, Impacts of Global Warming, Carbon Trading .
2 <sup>nd</sup> Week	Revision of Syllabus

## Lesson plan for the odd semester (July to November, 2019)

Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- II (Cell Biology)

Class- B.Sc. I (Medical and Biotech.)

<b>July,2019</b> 3 <sup>rd</sup> Week	Intoduction
4 <sup>th</sup> Week	The Cell Envelopes: Structure and functions of Cell Wall
5th Week	The Cell Envelopes: Structure and functions of Plasma Membrane
<b>August,2019</b> 1 <sup>st</sup> Week	Ultrastructure and function of Mitochondria
2 <sup>nd</sup> Week	Ultrastructure and function of Chloroplast
3 <sup>rd</sup> Week	Ultrastructure and function of Endoplasmic Reticulum and Golgi Apparatus
4 <sup>th</sup> Week	Ultrastructure and function of Lysosomes, Peroxisomes and Vacuoles
5 <sup>th</sup> Week	Ultrastructure and function of Nucleus
<b>September, 2019</b> 1 <sup>st</sup> Week	Chromosome: Morphology, organization, ultrastructure of Centromere and Telomere

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Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- II (Cell Biology)

Class- B.Sc. I (Medical and Biotech.)

2 <sup>nd</sup> Week	Chromosome: Morphology, organization, ultrastructure of Centromere and Telomere
3 <sup>rd</sup> Week	Cell Division: Mitosis
4 <sup>th</sup> Week	Cell Division: Meiosis
<b>October, 2019</b> 1 <sup>st</sup> Week	<b>Sessionals</b>
2 <sup>nd</sup> Week	Chromosomal Alterations (deletions, duplications, translocations, inversions)
3 <sup>rd</sup> Week	Variations in Chromosome Number (Aneuploidy and Polyploidy)
4 <sup>th</sup> Week	<b>Vacations w. e. f. from October 24<sup>th</sup> to 30<sup>th</sup> October, 2019</b>
<b>November, 2019</b> 1 <sup>st</sup> Week	Sex chromosomes and sex determination
2 <sup>nd</sup> Week	Revision of Syllabus

## Lesson plan for the odd semester (July to November, 2019)

Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- I (Diversity of Seed Plants-I)

Class- B.Sc. II (Medical and Biotech.)

July,2019 3 <sup>rd</sup> Week	Intoduction
4 <sup>th</sup> Week	General characterstics of Gymnosperms
5th Week	Classification of Gymnosperms
August,2019 1 <sup>st</sup> Week	Morphology and anatomy of root, stem leaf/leaflet of <i>Cycas</i>
2 <sup>nd</sup> Week	Morphology and anatomy of reproductive parts including mode of reproduction of <i>Cycas</i>
3 <sup>rd</sup> Week	Life-cycle and Economic Importance of <i>Cycas</i>
4 <sup>th</sup> Week	Morphology and anatomy of root, stem leaf/leaflet of <i>Pinus</i>
5 <sup>th</sup> Week	Morphology and anatomy of reproductive parts including mode of reproduction of <i>Pinus</i>
September, 2019 1 <sup>st</sup> Week	Life Cycle and Economic Importance of <i>Pinus</i>

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Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- I (Diversity of Seed Plants-I)

Class- B.Sc. I (Medical and Biotech.)

2 <sup>nd</sup> Week	Morphology and anatomy of root, stem leaf/leaflet of <i>Ephedra</i>
3 <sup>rd</sup> Week	Morphology and anatomy of reproductive parts including mode of reproduction of <i>Ephedra</i>
4 <sup>th</sup> Week	Revision, Life Cycle and Economic Importance of <i>Ephedra</i>
<b>October,2019</b> 1 <sup>st</sup> Week	<b>Sessionals</b>
2 <sup>nd</sup> Week	Palaeobotany-Fossils and Fossilization Geological Time Table
3 <sup>rd</sup> Week	Geological Time Table
4 <sup>th</sup> Week	<b>Vacations w. e. f. from October 24<sup>th</sup> to 30<sup>th</sup> October ,2019</b>
<b>November, 2019</b> 1 <sup>st</sup> Week	Reconstruction of the fossil Gymnosperms and Evolution of Seed Habit
2 <sup>nd</sup> Week	General characters of Angiosperms including primitive Angiosperms and Revision of Syllabus

## Lesson plan for the odd semester (July to November, 2019)

Name of the Teacher- Dr. Seema Sharma

Subject-Botany

Paper- I (Diversity of Microbes and Cryptogams)

Class- B.Sc. I (Medical and Biotech.)

July,2019 3 <sup>rd</sup> Week	Intoduction
4 <sup>th</sup> Week	General characters and Classification of Algae
5th Week	Important features and life-history of <i>Volvox</i> and <i>Oedogonium</i> (Chlorophyceae)
August,2019 1 <sup>st</sup> Week	Important features and life-history of <i>Vaucheria</i> (Xanthophyceae)
2 <sup>nd</sup> Week	Important features and life-history of <i>Ectocarpus</i> (Phaeophyceae)
3 <sup>rd</sup> Week	Important features and life-history of <i>Polysiphonia</i> (Rhodophyceae)
4 <sup>th</sup> Week	Economic Importance of Algae
5 <sup>th</sup> Week	General characters and Classification of Fungi
September, 2019 1 <sup>st</sup> Week	Important features and life-history of <i>Phytophthora</i> (Mastigomycotina)

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Name of the Teacher- Dr. Seema Sharma

Subject-Botany

Paper- I (Diversity of Microbes and Cryptogams)

Class- B.Sc. I (Medical and Biotech.)

2 <sup>nd</sup> Week	Important features and life-history of <i>Mucor</i> (Zygomycotina) and <i>Penicillium</i> (Ascomycotina)
3 <sup>rd</sup> Week	Important features and life-history of <i>Puccinia</i> (Basidiomycotina)
4 <sup>th</sup> Week	Important features and life-history of <i>Agaricus</i> (Basidiomycotina)
<b>October, 2019</b> 1 <sup>st</sup> Week	<b>Sessionals</b>
2 <sup>nd</sup> Week	Important features and life-history of <i>Colletotrichum</i> (Deuteromycotina) and Economic Importance of Fungi
3 <sup>rd</sup> Week	General account of Lichens
4 <sup>th</sup> Week	<b>Vacations w. e. f. from October 24<sup>th</sup> to 30<sup>th</sup> October, 2019</b>
<b>November, 2019</b> 1 <sup>st</sup> Week	Structure, Nutrition, Reproduction and Economic Importance of Bacteria
2 <sup>nd</sup> Week	General account of Cyanobacteria (with reference to <i>Nostoc</i> ), Viruses including structure of TMV and Bacteriophage.

## Lesson plan for the odd semester July to November 2019

Name of College- **KVA DAV College for Women, Karnal**

Name of Assistant Professor: **SEEMA SHARMA**

Class and Section: **B.Sc. III, SEMESTER Vth**

Subject: **BOTANY-I : PLANT PHYSIOLOGY**

July,2019 3 <sup>rd</sup> Week	<b>UNIT –I</b> Plant- Water Relations: Importance of water to plant life, physical properties of water; imbibitions; diffusion and osmosis .
4 <sup>th</sup> Week	Plasmolysis ; concept of water potential and Absorption of Water.
5 <sup>th</sup> Week	Transport Of Water
August,2019 1 <sup>st</sup> Week	Transpiration
2 <sup>nd</sup> Week	Mineral Nutrition
3 <sup>rd</sup> Week	Uptake of Mineral Nutrition
4 <sup>th</sup> Week	Transport of Organic Substances
5 <sup>th</sup> Week	<b>UNIT –II</b> Photosynthesis I: Significance; historical aspects; photosynthetic pigments; action spectra and enhancement effects; Concept of two photosystem; Z-scheme .
September, 2019 1 <sup>st</sup> Week	Photosynthesis II : Photophosphorylation; Calvin Cycle; C4 Cycle; CAM Plants; Photorespiration

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### Subject- BOTANY PAPER-I PLANT PHYSIOLOGY

#### Class-B.Sc.III

2 <sup>nd</sup> Week	Growth and Development
3 <sup>rd</sup> Week	Respiration I: ATP ; aerobic and anaerobic respiration; Kreb cycle
4 <sup>th</sup> Week	Respiration II: Electron transport system; redox potential; Oxidative phosphorylation; Pentose Phosphate Pathway.
October,2019 1 <sup>st</sup> Week	<b>Sessionals</b>
2 <sup>nd</sup> Week	Dormancy and Seed Germination
3 <sup>rd</sup> Week	Plant Movements
4 <sup>th</sup> Week	<b>Vacations w. e. f. from 24<sup>th</sup> October to 30<sup>th</sup> October ,2019</b>
Nov,2019 1 <sup>st</sup> Week	Physiology of Flowering
2 <sup>nd</sup> Week	Revision of Syllabus