MONTHLY LESSON PLAN
B. Sc. In Life Science 1ST SEMESTER 1st
SUBJECT: BOTANY, SESSION 2025-26

CMG GCW BHOIA KHERA, FATEHABAD	
NAME OF THE ASSISTANT PROFESSOR	**DR.VIKAS KUMAR JANGU**
CLASS AND SECTION:	**B. Sc. In Life Science 1ST SEMESTER 1st**
Course code	**BSC/BOT/MD/1/DSC/101**
NOMENCLATURE:	**DIVERSITY OF MICROBES**
WEEK	**TOPICS**
JULY 2025	ORIENTATION FOR NEW COMERS **Introduction to microbial world:** Scope of microbes in industry and environment; Microbial nutrition, growth, metabolism, anabolism and catabolism.
AUGUST 2025	**Viruses:** Discovery, physiochemical and biological characteristics; classification (Baltimore), general structure with special reference to viroids and prions; replication, DNA virus (T-phage), lytic and lysogenic cycle; RNA virus (TMV). Economic importance of viruses. **Bacteria:** Discovery, general characteristics; Types- Archaebacteria, eubacteria, actinomycetes, mycoplasma; Cell structure; Nutritional types; Reproduction-vegetative, asexual and recombination. Economic importance of bacteria.
SEPTEMBER 2025	**Algae:** General characteristics; Ecology and distribution; range of thallus organization; Cell structure and components; cell wall, pigment system, reserve food, flagella, methods of reproduction; Classification. Economic importance of Algae. **Cyanophyta and Xanthophyta:** Ecology and occurrence; Range of

	thallus organization; Cell structure; Reproduction, Morphology and life-cycle of *Nostoc*and *Vaucheria.* **Chlorophyta, Charophyta and Bacillariophyta:** General characteristics; Occurrence; Range of thallus organization; Cell structure; Reproduction. Morphology and life-cycles of *Volvox, Oedogonium, Coleochaete, Chara.* General Account of Bacillariophyta. **PhaeophytaandRhodophyta:** Characteristics ;Occurrence; Range of thallus organizationCell structure; Reproduction. Morphologyandlife-cycles of*Ectocarpus*, *Fucus*and *Polysiphonia*
OCTOBER 2025	**Fungi**: General characters, Introductory classification; economic importance; and life-history of *Phytophthora*(Mastigomycotina), *Penicillium*(Ascomycotina), *Puccinia*(Basidiomycotina), *Colletotrichum*(Deuteromycotina). GeneralaccountofLichens,types,ecologicalandeconomicimportance.
NOVEMBER 2025	REVISION AND DOUBTS OF PAPER- : SECTION A REVISION AND DOUBTS OF PAPER- : SECTION B REVISION AND DOUBTS OF PAPER- : SECTION C REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION WORK

MONTHLY LESSON PLAN
B. SC. MEDICAL 1ST SEMESTER 1st
SUBJECT: BOTANY, SESSION 2024-25

CMG GCW BHOIA KHERA, FATEHABAD	
NAME OF THE ASSISTANT PROFESSOR	**DR.VIKAS KUMAR JANGU**
CLASS AND SECTION:	**BSC I (MEDICAL) 1ST SEMESTER**
SUBJECT:	**BOTANY**
NOMENCLATURE:	**DIVERSITY OF MICROBES**
WEEK	**TOPICS**
JULY 2019	ORIENTATION FOR NEW COMERS **Introduction of Microbial world** : Scope of microbes in industry and environment, Microbial nutrition, grouth, metabolism **ASSIGNMENT DISCUSSION**
AUGUST 2019	**VIRUSES :** GENERAL ACCOUNT OF VIRUSES INCLUDING STRUCTURE OF TMV AND BACTERIOPHAGES.,Classification, ASSIGNMENT DISCUSSION
SEPTEMBER 2019	ASSIGNMENT DISCUSSION
OCTOBER 2019	
NOVEMBER 2019	REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION WORK

MONTHLY LESSON PLAN
B.SC. MEDICAL 5TH SEMESTER
SUBJECT: BOTANY, SESSION 2025-26

CMG GCW BHOIA KHERA, FATEHABAD	
NAME OF THE ASSISTANT PROFESSOR	**DR. VIKAS KUMAR JANGU**
CLASS AND SECTION:	**BSC III (MEDICAL) 5TH SEMESTER**
SUBJECT:	**BOTANY PAPER- I AND PAPER- II**
NOMENCLATURE:	**PAPER- I : PLANT PHYSIOLOGY** **PAPER- II : ECOLOGY**
WEEK	**TOPICS**
AUGUST 2025	**ORIENTATION FOR NEW COMERS** PLANT-WATER RELATIONS ABSORPTION OF WATER TRANSLOCATION OF WATER TRANSPIRATION MINERAL NUTRITION UPTAKE OF MINERAL NUTRITION TRANSLOCATION OF ORGANIC SUBSTANCES PHOTOSYNTHESIS-I (INTRODUCTION) REVISION AND DOUBTS
SEPTEMBER 2025	PHOTOSYNTHESIS-II (LIGHT PHASE) PHOTOSYNTHESIS-III (DARK PHASE) RESPIRATION-I (INTRODUCTION) RESPIRATION- II (MECHANISM OF RESPIRATION) SEED GERMINATION AND DORMANCY SENESCENCE AND FRUIT RIPENING PHYSIOLOGY OF FLOWERING PLANT MOVEMENTS REVISION AND DOUBTS TEST ASSIGNMENT DISCUSSION: PAPER I
OCTOBER 2025	AN INTRODUCTION OF ECOLOGY CLIMATIC FACTORS TOPOGRAPHIC FACTORS BIOTIC FACTORS ECOLOGICAL ADAPTATIONS POPULATION ECOLOGY COMMUNITY ECOLOGY PLANT SUCCESSION ECOSYSTEM REVISION AND DOUBTS TEST
NOVEMBER2025	BIOGEOCHEMICAL CYCLES PHYTOGEOGRAPHY AIR POLUTION WATER POLLUTION TEST ASSIGNMENT DISCUSSION: PAPER II REVISION AND DOUBTS OF PAPER- I REVISION AND DOUBTS OF PAPER- II REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION WORK

Dr. Vikas Kumar Jangu

Dr. Satish Kumar

B. Sc. In Life Science 2nd SEMESTER 3rd
SUBJECT: BOTANY, SESSION 2025-26

CMG GCW BHOIA KHERA, FATEHABAD	
NAME OF THE ASSISTANT PROFESSOR	**DR.VIKAS KUMAR JANGU**
CLASS AND SECTION:	**B. Sc. In Life Science 2nd SEMESTER 3rd**
Course code	**BSC/BOT/MD/3/DSC/201**
NOMENCLATURE:	**Plant taxonomy and Anatomy**
WEEK	**TOPICS**
AUGUST 2025	**Plant identification:** Herbarium Techniques; Functions of Herbarium; Important herbaria and botanical gardens of the world and India. **Taxonomic hierarchy:** Concept of taxa; Categories and taxonomic hierarchy; Species concept. Role of modern tools (Chemotaxonomy, Cytotaxonomy and Numerical taxonomy) in relation to taxonomy.
SEPTEMBER 2025	**Systems of classification:** Classification systems of Benthan and Hooker (up to order) and Engler and Prantl (up to order). Principles and rules (ICN) of Botanical nomenclature; Ranks and names. **Tissue systems in Plants:** Shot apical meristem; Meristmetic and permanent system. Structure of dicot and monocot stem. Organization of root apex, Structure of dicot and monocot root. Morphologyandlife-cycles of*Ectocarpus*, *Fucus*and *Polysiphonia*
OCTOBER 2025	**Vascular Cambium and Wood:** Structure, function and seasonal activity of cambium; Secondary growth in root and stem. Sapwood and heartwood; Ring and diffuse porous wood; Early and late wood, tyloses; Development and composition of periderm, rhytidome and lenticels. Epidermal tissue system,

	cuticle, epicuticular waxes, trichomes.
NOVEMBER 2025	REVISION AND DOUBTS OF PAPER- : SECTION A REVISION AND DOUBTS OF PAPER- : SECTION B REVISION AND DOUBTS OF PAPER- : SECTION C REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION WORK