MONTHLY LESSON PLAN B. SC. MEDICAL 1ST SEMESTER SUBJECT: BOTANY, SESSION 2022-2023

CMG GCW BHOIA KHERA, FATEHABAD		
NAME OF THE ASSISTANT PROFESSOR	DR.VIKAS KUMAR JANGU	
CLASS AND SECTION:	BSC I (MEDICAL) 1ST SEMESTER	
SUBJECT:	BOTANY PAPER- I AND PAPER- II	
NOMENCLATURE:	PAPER- I DIVERSITY OF MICROBES PAPER- II CELL BIOLOGY	
MONTH	TOPICS	
AUGUST 2022	ORIENTATION FOR NEW COMERS BACTERIA: STRUCTURE, NUTRITION, REPRODUCTION AND ECONOMIC IMPORTANCE: GENERAL ACCOUNT OF CYANOBACTERIA (WITH REFRENCE TO NOSTOC)	
SEPTEMBER 2022	ALGAE: GENERAL CHARACTERS, CLASSIFICATION (UPTO CLASSES) AND ECONOMIC IMPORTANCE: IMPORTANT FEATURES AND LIFE-HISTORY (EXCLUDING EVELOPMENT) OF VOLVOX, OEDOGONIUM (CHLOROPHYCEAE), VAUCHERIA (XANTHOPHYCEAE), ECTOCRPUS (PHAEOPHYCEAE) AND POLYSIPHONIA (RHODOPHYCEAE) VIRUSES: GENERAL ACCOUNT OF VIRUSES INCLUDING STRUCTURE OF TMV AND BACTERIOPHAGES. REVISION AND DOUBTS TEST: VIRUSES	
OCTOBER 2022	FUNGI: GENERAL CHARACTERS, CLASSIFICATION (UPTO CLASSES) AND ECONOMIC IMPORTANCE; IMPORTANT FEATURES AND LIFE-HISTORY OF PHYTOPHTHORA (MASTIGOMYCOTINA), MUCOR (ZYGOMYCOTINA), PENICILLIUM (ASCOMYCOTINA), PUCCINIA, AGARICUS (BASIDIOMYCOTINA)., COLLETOTRICHUM (EUTEROMYCOINA); GENERAL ACCOUNT OF LICHENS. THE CELL ENVELOPES: TRUCTURE AND FUNCTIONS CELL WALL AND PLASMA MEMBERANE. ULTRASTRUCTURE AND FUNCTION OF NUCLEUS, GOLGI APPARATUS, ENDOPLASMIC RETICULUM, CHLOROPLAST, MITOCHONDRIA, LYSOSOMES, PEROXISOMES AND VACUOLES. TEST: FUNGI ASSIGNMENT DISCUSSION	
NOVEMBER 2022	CELL DIVISION: MITOSIS AND MEIOSIS CHROMOSOME: MORPHOLOGY, ORGANISATION, ULTRASTRUCTURE OF CENTROMERE AND TELOMERE; CHROMOSOMAL ALTERATION-DELETIONS, DUPLICATIONS, TRANSLOCATIONS, INVERSIONS; VARIATIONS IN CHROMOSOME NUMBER-ANEUPLOIDY; POLYPLOIDY; SEX CHROMOSOMES AND SEX DETERMINATION. REVISION AND DOUBTS TEST: CELL DIVISION TEST: CHROMOSOME:	
DECEMBER 2022	TEST: ASSIGNMENTS DISCUSSION: PAPER II REVISION AND DOUBTS OF PAPER- I: COMPLETE SYLLABUS SECTION A REVISION AND DOUBTS OF PAPER- II: COMPLETE SYLLABUS SECTION A REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION WORK	

DR. VIKAS KUMAR JANGU

MONTHLY LESSON PLAN B.SC. MEDICAL 5TH SEMESTER SUBJECT: BOTANY, SESSION 2022-2023

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	
MONTH	TOPICS	
AUGUST 2022	PLANT-WATER RELATIONS ABSORPTION OF WATER TRANSLOCATION OF WATER TRANSPIRATION	
SEPTEMBER 2022	MINERAL NUTRITION UPTAKE OF MINERAL NUTRITION TRANSLOCATION OF ORGANIC SUBSTANCES PHOTOSYNTHESIS-I (INTRODUCTION) PHOTOSYNTHESIS-II (LIGHT PHASE) PHOTOSYNTHESIS-III (DARK PHASE) RESPIRATION-I (INTRODUCTION) RESPIRATION- II (MECHANISM OF RESPIRATION) SEED GERMINATION AND DORMANCY REVISION AND DOUBTS	
OCTOMBER 2022	ASSIGNMENT DISCUSSION: PAPER I SENESCENCE AND FRUIT RIPENING PHYSIOLOGY OF FLOWERING PLANT MOVEMENTS AN INTRODUCTION OF ECOLOGY CLIMATIC FACTORS TOPOGRAPHIC FACTORS BIOTIC FACTORS ECOLOGICAL ADAPTATIONS POPULATION ECOLOGY REVISION AND DOUBTS TEST	
NOVEMBER 2022	COMMUNITY ECOLOGY PLANT SUCCESSION ECOSYSTEM BIOGEOCHEMICAL CYCLES PHYTOGEOGRAPHY AIR POLUTION WATER POLLUTION	
DECEMBER 2022	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

MONTHLY LESSON PLAN B. SC. MEDICAL 3RD SEMESTER SUBJECT: BOTANY, SESSION 2022-2023

CMG GCW BHOIA KHERA, FATEHABAD		
NAME OF THE ASSISTANT PROFESSOR	DR. VIKAS KUMAR JANGU	
CLASS AND SECTION:	BSC I (MEDICAL) 3RD SEMESTER	
SUBJECT:	BOTANY PAPER- I AND PAPER- II	
NOMENCLATURE:	PAPER- I : BIOLOGY AND DIVERSITY OF SEED PLANTS-I / PAPER- II : PLANT ANATOMY	
MONTH	TOPICS	
AUGUSR 2022	GENERAL CHARACTERS AND DIVERSITY OF GYMNOSPERMS (SEED PLANTS WITHOUT FRUITS) PILGER AND MELCHIOR'S (1954) SYSTEM OF CLASSIFICATION. GEOLOGICAL TIME TABLE; EVOLUTION OF SEED HABIT. PALAEOBOTANY-FOSSILS AND FOSSILIZATION (PROCESSES INVOLVED, TYPE OF FOSSI AND IMPORTANCE OF FOSSILS);	
SEPTEMBER 2022	RECONSTRUCTION OF THE FOLLOWING FOSSIL PLANTS: LYGINOPTERIS WILLIAMSONIA CYCADEOIDEA (=BENNETTITES) MORPHOLOGY AND ANATOMY OF ROOT, STEM, LEAF/LEAFLET AND REPRODUCTIVE PARTS INCLUDING MODE OF REPRODUCTION, LIFE-CYCLE AND ECONOMIC IMPORTANCE OF THE FOLLOWING: CYCAS PINUS EPHEDRA REVISION AND DOUBTS TEST ASSIGNMENT DISCUSSION: PAPER I	
OCTOMBER 2022	GENERAL CHARACTERS OF ANGIOSPERMS INCLUDING PRIMITIVE ANGIOSPERMS (AMENTIFERAE, RANALES, MAGNOLIALES) DIVERSITY IN PLANTS FORMS-ANNUALS, BIENNIALS AND PERENNIALS. TISSUES-MERISTEMATIC AND PERMANENT (SIMPLE AND COMPLEX) THE SHOOT SYSTEM-SHOOT APICAL MERISTEM AND ITS HISTOLOGICAL ORGANIZATIONS (MONOCOT AND DICOT STEM) CAMBIUM-STRUCTURE AND FUNCTIONS. SECONDARY GROWTH IN DICOT STEM, CHARACTERISTICS OF GROWTH RINGS; SAP WOOD AND HEART WOOD, PERIDERM; ANAMALOUS SECONDARY GROWTH (DRACAENA, BOERHAAVIA AND ACHYRATHES)	
NOVEMBER 2022	LEAF-TYPES OF LEAVES (SIMPLE AND COMPOUND): PHYLLOTAXY. EPIDERMIS-UNISERIATE AND MULTISERIATE, EPIDERMAL APPENDAGES AND THEIR MORPHOLOGICAL TYPES. ANATOMY OF TYPICAL MONOCOT AND DICOT LEAF AND CELL INCLUSIOND IN LEAVES; LEAF ABSCISSION. STOMATAL APPARATUS AND THEIR MPRPHOLOGICAL TYPES. ROOT SYSTEM-THE ROOT APICAL MERISTEM; THEIR HISTOLOGICAL ORGANISATION (MONOCOT AND DICOT ROOT) SECONDARY GROTH IN ROOT. STRUCTRAL MODIFICATION IN ROOTS-STORAGE (BETA), RESPIRATORY (RHIZOPHORA), EPIPHYTIC (VANDA). REVISION AND DOUBTS, TEST, ASSIGNMENT DISCUSSION: PAPER I	



TEST:

ASSIGNMENTS DISCUSSION: PAPER II REVISION AND DOUBTS OF PAPER- I REVISION AND DOUBTS OF PAPER- II

DECEMBER 2022

REVISION AND DOUBTS: COMPLETE SYLLABUS REVISION AND DOUBTS: COMPLETE SYLLABUS

REVISION WORK

DR. VIKAS KUMAR JANGU

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