

ACADEMIC PLANNING

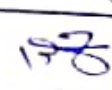
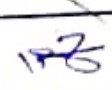
Department: BOTANY

Name of the Teacher: K. SUNDHARARAJAN

Year 2019-2020

Title of the Paper: C-P-10 BIOCHEMISTRY Subject Code: 17VB0610

Semester: ~~ODD~~ / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 02.12.2019 To: 03.02.2020	<u>UNIT-I</u> Basic concept of atoms and molecules, types of bonding; primary chemical bonds - covalent, hydrogen bonds, isotopes, and isomerism. Acids, base, solutions, colloids, pH and buffer systems <u>UNIT-II</u> Enzymes; Definition, Structure, Properties, mode of action and factors affecting enzyme activity.	15 + 7.5 hrs	02-12-2019 to 03-02-2020	-Nil-		
II From: 12.02.2020 To: 19.03.2020	<u>UNIT-IV</u> - Nucleic acids: Biochemistry of nucleic acids, DNA dynamics - C-value paradox - DNA recombination and denaturation. <u>UNIT-V</u> - Biochemical techniques: Chromatography - Paper and Thin Layer, Column and Spectrometry - UV - VIS, Infrared - Single beam and Double beam Spectrophotometry - AGE and PAGE, qualitative and quantitative	22.5 hrs.	02-02-2020 to 19-03-2020	-Nil-		

ACADEMIC PLANNING

Department: BOTANY

Name of the Teacher: K. SONDHARARAJAN

Year 2019-2020

Title of the Paper: C.F.4. BIOMINFORMATICS Subject Code: 19PB0204

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 2.12.2019 To: 03.02.2020	<u>UNIT-I</u> Central dogma of molecular biology, Gene structure and information content. Promoter sequences, Genetic code, open reading frames, introns and exons. Gene finding: Content based, comparative and site based methods, tools and problems in gene finding. <u>UNIT-II</u> - Regulation of gene expression in Prokaryotes and eukaryotes.	28 hrs	02.12.2019 to 03.02.2020	-Nil-		
II From: 12.02.2020 To: 19.03.2020	<u>UNIT-II</u> - Transcription factors, Classification of Ecological databases, sequence, structural databases, specialized and literature databases. <u>UNIT-III</u> - Recent trends in Bioinformatics, Biomolecular visualization, Phylogenetic analysis and computer aided drug designing. Applications of Bioinformatics in various fields.	28 hrs.	12.02.2020 to 19.03.2020	-Nil-		

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Biology

Name of the Teacher: Dr. K. KARISHMA

Year 2020 - 2021

Title of the Paper: C.P.A. - Bio Physics and Biostatistics

Subject Code: 19080401

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 4/1/2021 To: 15/4/2021	<u>Unit - I</u> Measures of Central tendency - Mean [Arithmetic only], median and mode. Rounding off figures. Precision, accuracy and error.	8 hrs			<u>K. Karishma</u>	<u>[Signature]</u>
II From: 16/4/2021 To: 11/5/2021	Dispersion or deviation - Range, average deviation, variance, standard deviation and standard error. Test of significance - Chi square test and t-test.	7 hrs			<u>K. Karishma</u>	<u>[Signature]</u>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Botany

Name of the Teacher: Dr. L. KARUNAIA

Year 2020-2021

Title of the Paper: C.P. 10 - Plant Physiology Subject Code: 18UB0610

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I	<u>Unit - I</u> Plant - water relationship - structure, properties and biological significance of water; water potential and its components, physical forces involved in absorption of water - diffusion, osmosis, imbibition. Absorption of water - mechanism and affecting factors. Absorption of minerals - mechanism (Active and Passive).	15 Hrs.			Staff	HOD
II	<u>Unit - II</u> - Ascent of sap - path and mechanism, Translocation of organic solutes - directions, path, mechanism, assimilates partitioning and controlling factors. Transpiration - kinds, mechanism of stomatal transpiration, significance and factors affecting stomatal movement.	15 Hrs.			Staff	HOD

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Botany Name of the Teacher: Dr. X. KARJHA
 Title of the Paper: Cell Biology, Genetics, Plant Breeding & Biotechnology Subject Code: BPPBO205
 Year 2020 - 2021 Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
1 From : 8/3/2021 To : 11/5/2021	<u>Unit - I</u> Structure and functions of cell organelles and nucleus. Chromosome - Structure, Molecular organisation of chromosome, Special types of chromosome - Long brush chromosome, Polytene chromosome & Super numerical chromosome, chromosomal aberration - Numerical and structural variations. Genes - Features of	27 Hours			X. Karthik	
II From : To :	gene concept, molecular structure of gene, gene function. Genetic code - salient features & Wobble hypothesis. <u>Unit - II</u> - Mendelism - Basic principles, Gene interaction, Quantitative inheritance, Sex determination: Mechanism (Genetical, metabolic, hormonal and Environmental sex determination)					

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Botany Name of the Teacher: Dr. K. KARUNHA Year 2020 - 2021
 Title of the Paper: C.P.S - Cell Biology, Genetics, Plant Breeding and Biostatistics Subject Code: 20P80205 Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of Staff	HOD
II From: <u>21/5/2021</u> To: <u>3/6/2021</u>	<u>Unit - II</u> Sex linked inheritance - X linked, Y linked and XY linked, Sex influenced and sex limited characters, Cytoplasmic inheritance: Pleiotic inheritance, Cytoplasmic male sterility, Mitochondrial inheritance and inheritance in haploid organisms.	27 Hours			<u>Hardik</u>	<u>Dr.</u>
<u>Test: 21/</u>	<u>Unit - III</u> - Mutation; Detection of mutation - Lethal mutation & visible mutation. Molecular basis of mutation, Physical & chemical mutagens. Biochemical genetics: Biochemical mutation in bacteria & Neutrons Population genetics - Gene pool, gene frequencies, Hardy-Weinberg law, factors affecting gene frequencies - mutation, selection, migration, genetic drift. Chromosome mapping: Gene mapping.					
<u>Test:</u>						

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY Name of the Teacher: Dr. R. REKKA

Year 2020 - 2021

Title of the Paper: Core Paper: II Plant Physiology Subject Code: 18UB0610

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of Staff	HOD
I From : 04.01.2021 To : 15.04.2021	Unit III : Photosynthesis : pigment system (PS-I & PS-II), Mechanism - light reaction, dark reaction - Calvin cycle, Hatch and Slack pathway and C ₄ pathway, Factors controlling photosynthesis.	9 Hours	-	NIL	<i>[Signature]</i>	<i>[Signature]</i>
II From : 04.01.2021 To : 15.04.2021	Respiration : Glycolysis, Anaerobic (fermentation) and aerobic Krebs Cycle) and ATP Synthesis. Factors influencing respiration	9 Hours	-	NIL	<i>[Signature]</i>	<i>[Signature]</i>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY

Name of the Teacher: Dr. R. Rekha

Year 2020 - 2021

Title of the Paper: C.P.10: Plant Physiology Subject Code: 18UB3061D Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
1	Unit IV : Nitrogen metabolism - Nitrogen cycle, Biological Nitrogen fixation - Symbiotic and Non-symbiotic. Formation of root nodules in leguminous plants, Factors controlling biological nitrogen fixation, Biosynthesis of	18 hours	—	NIL	Staff	HOD
II	amino acids					
From : 16.04.2021 To : 11.05.2021						
From : To :						

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY

Name of the Teacher: Dr. R. REKKA

Year 2020 - 2021

Title of the Paper: Care Paper: II - Plant Physiology Subject Code: 19PBO411

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I	Unit - II : Mechanism of Photosynthesis, Light reaction, Carbon fixation in C ₃ and C ₄ plants. Outline of C ₃ pathway. Photorespiration, Respiration	9.5 Hours	-	-	Staff	HOD
From : 04.01.2021 To : 15.04.2021						
II	Glycolysis, Krebs cycle and Pentose phosphate pathway, ATP Synthesis. Biological Nitrogen fixation - Symbiotic and Non-symbiotic	9.5 Hours	-	-	Staff	HOD
From : 16.04.2021 To : 11.05.2021						

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY

Name of the Teacher: Dr. R. REKKA

Year 2020-2021

Title of the Paper: Non-major Elective: Medicinal plants

Subject Code: 19PB304N2

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I	Unit : 1 : Ethnobotany - definition - Sub Divisions - methodology - major tribes in Southern India - regional studies - Ethnobotany in human welfare - food - medicine. Role of tribes in medicinal plants conservation - crop protection	18 Hours	-	NIL	Staff	HOD
From : 04.01.2021 To : 15.04.2021						
II	Unit : 2 : Sources of drugs - adaptation collection and processing of vegetable drugs - role of growth regulators - drug deterioration and their control measures. Herbal home remedies in Tamil Nadu.	18 Hours	-	NIL	Staff	HOD
From : 16.04.2021 To : 11.05.2021						

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY

Name of the Teacher: Dr. R. REKKA

Year 2020-2021

Title of the Paper: Corse Paper 2. Plant Diversity Subject Code: 20030202

Semester: ODD / EVEN ☒

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of Staff	HOD
I From : 04.01.2021 To : 15.04.2021	Unit : III : Occurrence, Structure, reproduction and life cycle of <u>Ophioglossum</u> and <u>Adiantum</u>	10.5		NIL	<u>[Signature]</u>	<u>[Signature]</u>
II From : 16.04.2021 To : 11.05.2021	Vascular Organization and Stelar evolution in Pteridophytes. Apogamy and apospory. Economic importance of Pteridophytes.	10.5		NIL	<u>[Signature]</u>	<u>[Signature]</u>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY

Name of the Teacher: Dr. R. REKKA

Year 2020-2021

Title of the Paper: Core Paper: 5 - Cell Biology, Genetics, Plant Breeding and Bio-Statistics

Subject Code: 20PB0205

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I	<u>UNIT IV: Plant Breeding - Introduction, History, major objectives, Principles - important achievements of plant breeding, Self and cross pollinated crops - pure line selection and mass selection methods; line breeding, pedigree, clonal selection. Incompatibility, male sterility. Mutation Breeding - methods, limitation and crop improvement. Modern trends in plant breeding.</u>	18 Hours	-	NIL	Staff	HOD
From : 08.03.2021 To : 11.05.2021						
II	<u>Unit V: Measures of central tendencies - Mean (only arithmetic), median and mode. Measures of deviation - mean deviation, variance, standard deviation, standard error and co-efficient of variation. Probability of distribution - Binomial, Poisson and Normal distribution. Linear regression and correlation (Simple and multiple), Tests of statistical significance - Chi-Square test and Student t-test</u>	18 Hours	-	NIL	Staff	HOD
From : 21.05.2021 To : 03.06.2021						

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: BOTANY Name of the Teacher: Dr. R. REKKA

Year 2020-2021

Title of the Paper: Core Paper: 10 Plant Physiology Subject Code: 18VB0610 Semester: OBD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I	Unit III : Photosynthesis : pigment system (PS-I & PS-II), Mechanism - light reaction, dark reaction - Calvin cycle, Hatch and Slack pathway and CAM pathway, Factors controlling photosynthesis.	9 Hours	-	NIL	Staff	HOD
From : 04.01.2021 To : 15.04.2021						
II	Respiration : Glycolysis, Anaerobic (Fermentation) and aerobic Krebs cycle) and ATP Synthesis. Factors influencing respiration	9 Hours	-	NIL	Staff	HOD
From : 04.01.2021 To : 15.04.2021						

Department: BOTANY Name of the Teacher: Dr. P. Remya

Year 2020 - 2021

Title of the Paper: Biophysics and Biostatistics Subject Code: 19UBOAR4

Semester: ODD / EVEN

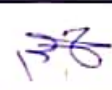
Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: <u>29.01.2021</u> To: <u>15.04.2021</u>	UNIT-1 Biophysics : Introduction, Scope and Importance, Electromagnetic Radiation and absorption. Excitation and de-excitation. Thermodynamic laws (enthalpy, entropy, free energy)	<u>15</u>	<u>04.01.2021</u> to <u>15.04.2021</u>	<u>-</u>		
II From: <u>23.04.2021</u> To: <u>11.05.2021</u>	UNIT II Biostatistics - Definition, Steps in statistics, data collection methods - Sampling - census and sampling method, law of statistical regularities, law of inertia of large numbers. Essential of sampling and methods of sampling - Probability of sampling - simple, random sampling, stratified random sampling, cluster, non-probability sampling. <u>Judgemental sampling, Quota sampling, convenient sampling, Primary & etc.</u>	<u>15</u>	<u>23.04.2021</u> to <u>11.05.2021</u>	<u>-</u>		

Department: BIOLOGY Name of the Teacher: T. T. F. K. V. A. J. H. I.

Year 2020 - 2021

Title of the Paper: Plant Diversity II Subject Code: 200BQ202

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From : 04.01.2021 To : 15.04.2021	UNIT II Pteridophytes : Occurrence, Structure, Reproduction and life cycle of Hypochoerum, Selaginella and Equisetum	21/4	04.01.2021 to 15.04.2021	-		
II From : 23.04.2021 To : 11.05.2021	UNIT II Pteridophytes : Occurrence, Structure, Reproduction and life cycle of Equisetum	21/4	23.04.2021 to 11.05.2021	-		

Department: BOTANY Name of the Teacher: P.A. P. REVATHI Year 2020-2021
 Title of the Paper: Ecology, Biogeography and Natural Resource Management Subject Code: BPB0206 Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I From: 08.03.2021 To: 11.05.2021	UNIT I Population and community Ecology - Ecology concepts and applications, biotic community concepts, characteristics and structure of population, ecological variations, and methods of studying plant communities. Ecological niches, edge effect and Ecotone UNIT II Ecosystem Ecology - Structure and functional characteristics of ecosystem, major ecosystems of the world	27	08.03.2021 to 11.05.2021	-		
II From: 21.05.2021 To: 03.06.2021	UNIT II Biogeochemical cycle - cycling and reservoir Pool, gaseous (N, C) and Redimentary Pattern (S, P) of cycling. Nutrient cycling and agricultural Pattern in tropical and temperate regions. Plant indicators of conditions, uses and Processes. UNIT V Natural Resource conservation and Management - Biodiversity - International and National Strategies. Importance: Ecological principles and applications in conservation of biodiversity, in-situ, ex-situ conservation	27	21.05.2021 to 03.06.2021	-		

ACADEMIC PLANNING

Department: Botany

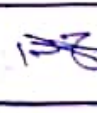
Name of the Teacher: Dr. P. Revathi

Year 2020 - 2021

Title of the Paper: Ecology

Subject Code: 202.BB.206

Semester: ODD / EVEN ✓

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From : To :	Cont. of species - Biosphere Reserves, Sanctuaries, national Parks, world hot spots, Remote sensing - Principle, tools, concepts and application - mapping of forest cover.	27	21-05-2021 to 03-06-2021	—		
II From : To : 10.06.2021						