

**ACADEMIC PLANNER EVEN SEMESTER 2022-23**  
**NAME OF THE DEPARTMENT: GENETICS(HONS) DSCC**  
**DISCIPLINE SPECIFIC CORE COURSE**

NAME OF THE DEPARTMENT: GENETICS(HONS)			
II SEMESTER SUBJECT TITLE: DSCCGENT2-BIOINSTRUMENTATION AND ANIMAL CELL CULTURE			
SEMESTER	DAY	PAPER	TEACHER
WEEK/MONTH & DATE (PREFERABLY)		PORTIONS PLANNED FOR 1 HOUR	
MAY FIRST WEEK	1	MICROSCOPY: INTRODUCTIO AND HISTROY	PRIYADARSHINI P.A
	2	PRINCIPLE AND OPTICAL COMPONENTS OF MICROSCOPE	PRIYADARSHINI P.A
	3	INSTRUMENTS USED IN SEPARATION TECHNIQUES-CENTRIFUGATION-PRINCIPLE	JALAJAKSHLS
	4	APPLICATION OF CENTRIFUGE	JALAJAKSHLS
MAY SECOND WEEK	1	COMPONENTS OF MICROSCOPE	PRIYADARSHINI P.A
	2	TYPES OF MICROSCOPES-SIMPLE	PRIYADARSHINI P.A
	3	TYPES OF CENTRIFUGE-HIGH SPEED CENTRIFUGE	JALAJAKSHLS
	4	ULTRA CENTRIFUGE	JALAJAKSHLS
MAY THIRD WEEK	1	COMPOUND MICROSCOPE	PRIYADARSHINI P.A
	2	LIGHT MICROSCOPE	PRIYADARSHINI P.A
	3	REFRIGERATED CENTRIFUGE	JALAJAKSHLS
	4	ROTORS -TYPES ,VERTICAL ,SWING, FIXED ANGLE	JALAJAKSHLS
MAY FOURTH WEEK	1	FLOURESCENCE MICROSCOPE	PRIYADARSHINI P.A
	2	ELECTRON MICROSCOPE	PRIYADARSHINI P.A
	3	CHROMATOGRAPHY-PRINCIPLE, TYPES, APPLICATION	JALAJAKSHLS
	4	PAPER CHROMATOGRAPHY	JALAJAKSHLS
JUNE FIRST WEEK	1	PHASE CONTRAST MICROSCOPE	PRIYADARSHINI P.A
	2	CONFOCAL MICROSCOPE	PRIYADARSHINI P.A
	3	ION EXCHANGE	JALAJAKSHLS
	4	GEL FILTRATION	JALAJAKSHLS
JUNE SECOND WEEK	1	STERO MICROSCOPE	PRIYADARSHINI P.A
	2	OPTICAL PATHWAY IN DIFFERENT MICROSCOPES	PRIYADARSHINI P.A
	3	HPLC-CHROMATOGRAPHY	JALAJAKSHLS
	4	AFFINITY CHROMATOGRAPHY	JALAJAKSHLS
JUNE THIRD WEEK	1	USES OF MICROSCOPY AND BIOLOGICAL APPLICATION	PRIYADARSHINI P.A
	2	MEDICAL SCIENCES ,FORENSIC LABORATORIES	PRIYADARSHINI P.A
	3	ELECTROPHORESIS-PRINCIPLE AND APPLICATION OF ELECTROPHORESIS	JALAJAKSHLS
	4	TYPES OF ELECTROPHORESIS-VERTICAL	JALAJAKSHLS
JUNE FOURTH WEEK	1	ANALYTICAL INSTRUMENT-PH METER PRINCIPLE	PRIYADARSHINI P.A
	2	COMPONENTS OF PH METER	PRIYADARSHINI P.A
	3	HORIZONTAL ELECTROPHORESIS	JALAJAKSHLS
	4	COMPONENTS OF ELECTROPHORESIS	JALAJAKSHLS
JULY FIRST WEEK	1	INTERNAL TEST	
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JULY SECOND WEEK	1	THERMOMETER-PRINCIPLE	PRIYADARSHINI P.A
	2	TYPESOF THERMOMETERS	PRIYADARSHINI P.A
	3	ANIMAL CELL CULTURE-PRINCIPLE, CELL TYPES	JALAJAKSHLS
	4	CELL LINES, PRIMARY AND SECONDARY CULTURE	JALAJAKSHLS
JULY THIRD WEEK	1	COLORIMETER-PRINCIPLE AND APPLICATION	PRIYADARSHINI P.A
	2	SPECTROPHOTOMETER-LAWIN SPECTROMETER	PRIYADARSHINI P.A
	3	CRYOPRESERVATION	JALAJAKSHLS
	4	CONTAMINATION	JALAJAKSHLS
JULY FOURTH WEEK	1	UV SPECTROPHOTOMETERS	PRIYADARSHINI P.A
	2	AAS, ESR	PRIYADARSHINI P.A
	3	ORGANOTYPIC CULTURE	JALAJAKSHLS
	4	REQUIREMENTS IN ANIMAL CULTURE-EQUIPMENTS AND TECHNIQUES	JALAJAKSHLS
AUGUST FIRST WEEK	1	NUCLEAR MAGNETIC RESONANCE (NMR)	PRIYADARSHINI P.A
	2	STERLIZATION METHODS-AUTOCLAVE	PRIYADARSHINI P.A
	3	CELL CULTURE MEDIA-NATURAL AND DEFINED ,COMPONENTS OF SERUM IN CULTURE	JALAJAKSHLS
	4	INVITRO TRANSFORMATION OF ANIMAL CELLS AND TYPES	JALAJAKSHLS
AUGUST SECOND WEEK	1	ASSIGNMENT CORRECTION AND DISCUSSION	
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AUGUST THIRD WEEK	1	STEAM AND HEAT STERLIZERS	PRIYADARSHINI P.A
	2	OVENS AND UV CHAMBERS	PRIYADARSHINI P.A
	3	APPLICATIONS OF CELL CULTURE-AMINOCENTESIS	JALAJAKSHLS
	4	MUTAGENESIS ,CYTOTOXICITY	JALAJAKSHLS
AUGUST FOURTH WEEK	1	REVISION CLASS AND	
	2	QUESTION PAPERMUTAGE DISCUSSION	
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NAME OF THE DEPARTMENT:GENETICS			
IV SEMESTER SUBJECT TITLE: GNT 401: MOLECULAR GENETICS			
SEMESTER	DAY	PAPER	
WEEK/MONTH & DATE (PREFERABLY)	DAY	PORTIONS PLANNED FOR 1 HOUR	TEACHER
MAY FIRST WEEK	1	GENETIC CODE	PRIYADARSHINI P.A
	2	GENETIC CODE: FEATURES	PRIYADARSHINI P.A
	3	CHEMICAL BASIS OF HEREDITY	JALAJAKSHI.S
	4	DNA AS A GENETIC MATERIAL-EXPERIMENT OF GRIFFITH.	JALAJAKSHI.S
MAY SECOND WEEK	1	TRANSCRIPTION- INITIATION	PRIYADARSHINI P.A
	2	TRANSCRIPTION- ELONGATION	PRIYADARSHINI P.A
	3	AVERY, MC CLOID AND MC CARTHY	JALAJAKSHI.S
	4	EXPERIMENTS OF HARSHEY AND CHASE	JALAJAKSHI.S
MAY THIRD WEEK	1	TRANSCRIPTION - TERMINATION	PRIYADARSHINI P.A
	2	POST TRASCRIPTIONAL MODIFICATION	PRIYADARSHINI P.A
	3	RNA AS GENETIC MATERIAL.	JALAJAKSHI.S
	4	MOLECULAR STRUCTURE OF DNA	JALAJAKSHI.S
MAY FOURTH WEEK	1	RNA SPLICING	PRIYADARSHINI P.A
	2	TRANSLATION- INITIATION	PRIYADARSHINI P.A
	3	CHARGAFFS RULE	JALAJAKSHI.S
	4	FORMS OF DNA TYPES AND STRUCTURE RIBOZYMES.	JALAJAKSHI.S
JUNE FIRST WEEK	1	TRANSLATION- ELONGATION	PRIYADARSHINI P.A
	2	TRANSLATION- TERMINATION	PRIYADARSHINI P.A
	3	RNA TYPES - MRNA	JALAJAKSHI.S
	4	RNA TYPES – TRNA ..	JALAJAKSHI.S
JUNE SECOND WEEK	1	POST TRANSLATIONAL MODIFICATION OF PROTEINS	PRIYADARSHINI P.A
	2	CONCEPT OF OPERON	PRIYADARSHINI P.A
	3	RNA TYPES – RRNA	JALAJAKSHI.S
	4	RIBOZYMES	JALAJAKSHI.S
JUNE THIRD WEEK	1	LAC OPERON	PRIYADARSHINI P.A
	2	CATABOLIC REPRESSION	PRIYADARSHINI P.A
	3	MESELSON AND STHAL EXPERIMENT	JALAJAKSHI.S
	4	REPLICATION IN PROKARYOTES- INITIATION	JALAJAKSHI.S
JUNE FOURTH WEEK	1	TRYPTOPHAN OPERON	PRIYADARSHINI P.A
	2	GENOMINS AND PROTEOMICS	PRIYADARSHINI P.A
	3	REPLICATION IN PROKARYOTES- ELONGATION	JALAJAKSHI.S
	4	REPLICATION IN PROKARYOTES- TERMINATION	JALAJAKSHI.S
JULY FIRST WEEK	1	INTERNAL TEST	
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JULY SECOND WEEK	1	METABOLOMICS, MICROBIOME	PRIYADARSHINI P.A
	2	INTRODUCTION TO TYPES OF GENE MUTATIONS	PRIYADARSHINI P.A
	3	REPLICATION IN EUKARYOTES- INITIATION	JALAJAKSHI.S
	4	REPLICATION IN EUKARYOTES - ELONGATION	JALAJAKSHI.S
JULY THIRD WEEK	1	PLEIOTROPY	PRIYADARSHINI P.A
	2		PRIYADARSHINI P.A
	3	REPLICATION IN EUKARYOTES - TERMINATION	JALAJAKSHI.S
	4	ROLLING CIRCLE REPLICATION	JALAJAKSHI.S
JULY FOURTH WEEK	1	MUTAGENS - PHYSICAL	PRIYADARSHINI P.A
	2	MUTAGENS - CHEMICAL	PRIYADARSHINI P.A
	3	FINE STRUCTURE OF GENE	JALAJAKSHI.S
	4	CHLOROPLAST GENOME	JALAJAKSHI.S
AUGUST FIRST WEEK	1	ASSIGNMENTS CORRECTION AND DISCUSSION	
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AUGUST SECOND WEEK	1	TRASPOSABLE ELEMENTS IN BACTERIA AND YEAST	PRIYADARSHINI P.A
	2	TRANSPOSABLE ELEMENTS IN MAIZE AND DROSOPHILA	PRIYADARSHINI P.A
	3	MITOCHONDRIAL GENOME	JALAJAKSHI.S
	4	BACTERIAL GENETICS- TRANSFORMATION	JALAJAKSHI.S
AUGUST THIRD WEEK	1	DNA REPAIR MECHANISM	PRIYADARSHINI P.A
	2	MUTATION AND SIGNIFICANCE	PRIYADARSHINI P.A
	3	TRANSDUCTION	JALAJAKSHI.S
	4	CONJUGATION	JALAJAKSHI.S
AUGUST FOURTH WEEK		QUESTION PAPER DISCUSSION	

NAME OF THE DEPARTMENT:GENETICS			
VI SEMESTER		PAPER-7 SUBJECT TITLE: GNT 601: DEVELOPMENT AND EVOLUTIONARY GENETICS	
SEMESTER	DAY	PAPER	TEACHER
WEEK/MONTH & DATE (PREFERABLY)	DAY	PORTIONS PLANNED FOR 1 HOUR	TEACHER
MAY FIRST WEEK	1	QUATITATIVE CHARACTERS	PRIYADARSHINI P.A
	2	TYPES OF QUATITATIVE CHARACTERS	PRIYADARSHINI P.A
	3	EARLY EMBRYONIC DEVELOPMENT IN FROG	JALAJAKSHI.S
	4	CLEAVAGE, BLASTULA AND GASTRULA	JALAJAKSHI.S
MAY SECOND WEEK	1	CONTINUOUS, MERISTIC CHARACTERS	PRIYADARSHINI P.A
	2	THRESHOLD CHARACTERS	PRIYADARSHINI P.A
	3	NUCLEAR TRANSPLANTATION IN AMPHIBIANS	JALAJAKSHI.S
	4	NUCLEAR TRANSPLANTATION IN ACETABULARIA	JALAJAKSHI.S
MAY THIRD WEEK	1	FEATUREES OF POLYGENIC TRAITS	PRIYADARSHINI P.A
	2	OLIGOGENEIC TRAITS	PRIYADARSHINI P.A
	3	ARABIDOPSIS FLOWER DEVELOPMENT	JALAJAKSHI.S
	4	FLORAL MORPHOGENESIS	JALAJAKSHI.S
MAY FOURTH WEEK	1	KERNEL COLOR IN WHEAT	PRIYADARSHINI P.A
	2	SKIN COLOR IN HUMANS	PRIYADARSHINI P.A
	3	HOMEOTIC GENE EXPRESSION	JALAJAKSHI.S
	4	DROSOPHILA EARLY DEVELOPMENT- INTRODUCTION	JALAJAKSHI.S
JUNE FIRST WEEK	1	EVOLUTIONARY AGENTS	PRIYADARSHINI P.A
	2	EVOLUTIONARY AGENTS	PRIYADARSHINI P.A
	3	ORIGIN OF ANTERIOR- POSTERIOR POLARITY	JALAJAKSHI.S
	4	DORSO- VENTRAL POLARITY	JALAJAKSHI.S
JUNE SECOND WEEK	1	TRANSGRESSIVE INHERITANCE IN POULTRY	PRIYADARSHINI P.A
	2	ENVIRONMENT EFFECTS – IQ IN HUMANS	PRIYADARSHINI P.A
	3	ROLE OF MATERNAL GENES	JALAJAKSHI.S
	4	ROLE OF ZYGOTIC GENES	JALAJAKSHI.S
JUNE THIRD WEEK	1	INTRODUCTION TO CORRELATION	PRIYADARSHINI P.A
	2	REGRESSION	PRIYADARSHINI P.A
	3	HOMEOTIC SELECTOR GENES	JALAJAKSHI.S
	4	DIFFERENTIAL EXPRESSION OF HAEMOGLOBIN	JALAJAKSHI.S
JUNE FOURTH WEEK	1	ANOVA	PRIYADARSHINI P.A
	2	GENETIC ANALYSIS OF QUATITATIVE TRAITS	PRIYADARSHINI P.A
	3	DARWINISM, NOE DARWINIAM	JALAJAKSHI.S
	4	SYNTHETIC THEORY	JALAJAKSHI.S
JULY FIRST WEEK	1	INTERNAL TEST	
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JULY SECOND WEEK	1	EAR LENGTH IN CORN	PRIYADARSHINI P.A
	2	VARIANCE IN POLYGENIC TRAITS	PRIYADARSHINI P.A
	3	EVOLUTION AT MOLECULAR LEVEL- NUCLOTIDE SEQUENCE	JALAJAKSHI.S
	4	NUCLEOTIDE SEQUENCE, GENEPOOL	JALAJAKSHI.S
JULY THIRD WEEK	1	PHENOTYPIC AND GENOTYPIC VARIANCE	PRIYADARSHINI P.A
	2	ENVIRONMENTAL AND ADDITIVE VARIANCE	PRIYADARSHINI P.A
	3	GENE AND GENOTYPE FREQUENCY	JALAJAKSHI.S
	4	HARDY WEINBERG LAW	JALAJAKSHI.S
JULY FOURTH WEEK	1	DOMINANCE AND EPISTATIC VARIANCE	PRIYADARSHINI P.A
	2	GENOTYPE AND ENVIRONMENTAL VARIATION	PRIYADARSHINI P.A
	3	MUTATION AND RANDOM DRAFT	JALAJAKSHI.S
	4	SPECIATION	JALAJAKSHI.S
AUGUST FIRST WEEK	1	BROAD SENSE AND NARROW SENSE HERITABILITY	PRIYADARSHINI P.A
	2	QUANTITATIVE TRAIT LOCI	PRIYADARSHINI P.A
	3	METHODS OF SPECIATION	JALAJAKSHI.S
	4	ISOLATION	JALAJAKSHI.S
AUGUST SECOND WEEK	1	PROBLEMS RELATED TO VARIANCE AND HERITABILITY	PRIYADARSHINI P.A
	2	PROBLEMS RELATED TO VARIANCE AND HERITABILITY	PRIYADARSHINI P.A
	3	PRE MATING ISOLATION MECHANISM	JALAJAKSHI.S
	4	POST MATING ISOLATION MECHANISM	JALAJAKSHI.S
AUGUST THIRD WEEK	1	EVOLUTIONARY AGENTS- SELECTION AND TYPES	PRIYADARSHINI P.A
	2	MIGRATION	PRIYADARSHINI P.A
	3	ROLE OF ISOLATION IN SPECIATION	JALAJAKSHI.S
	4	ROLE OF ISOLATION IN SPECIATION	JALAJAKSHI.S
AUGUST FOURTH WEEK	1	QUESTION PAPER DISCUSSION	
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NAME OF THE DEPARTMENT:GENETICS			
VI SEMESTER		PAPER-8 SUBJECT TITLE: GNT 602: APPLIED AND BEHAVIOUR GENETICS	
SEMESTER	PAPER		
WEEK/MONTH & DATE (PREFERABLY)	DAY	PORTIONS PLANNED FOR 1 HOUR	TEACHER
MAY FIRST WEEK	1	GERMPALM RESOROURCES - INTRODUCTION	PRIYADARSHINI P.A
	2	GERMPLASM CLASSIFICATION	PRIYADARSHINI P.A
	3	RECOMBIANT INSULIN	JALAJAKSHI.S
	4	RECOMBINANT INTERFERON	JALAJAKSHI.S
MAY SECONDWEEK	1	GERMPALSM ACTIVITIES	PRIYADARSHINI P.A
	2	NBPGR, IBPGR	PRIYADARSHINI P.A
	3	HUMAN GROWTH HARMONE	JALAJAKSHI.S
	4	VACCINES- HEPATITIS B	JALAJAKSHI.S
MAY THIRD WEEK	1	GENETIC EROSIN	PRIYADARSHINI P.A
	2	BIODIVERSITY	PRIYADARSHINI P.A
	3	PREPARATION OF PROBES	JALAJAKSHI.S
	4	MONOCLONAL ANTIBODIES	JALAJAKSHI.S
MAY FOURTH WEEK	1	RED DATA BANK	PRIYADARSHINI P.A
	2	ENDANGERED SPECIES	PRIYADARSHINI P.A
	3	DIAGNOSTIC KITS	JALAJAKSHI.S
	4	MICROARRAY	JALAJAKSHI.S
JUNE FIRST WEEK	1	EX- SITU AND INSITY CONSERVATION	PRIYADARSHINI P.A
	2	VAVILONIAN CENTRES FOR BIODIVERSITY	PRIYADARSHINI P.A
	3	METHODOLOGY OF DNA FINGERPRINTING	JALAJAKSHI.S
	4	MOLECULAR MARKER RFLP	JALAJAKSHI.S
JUNE SECOND WEEK	1	GENE BANK AND CRYOPRESERVATION- TYPES	PRIYADARSHINI P.A
	2	GENE BANK AND CRYOPRESERVATION- METHODS	PRIYADARSHINI P.A
	3	MALOECLULAR MARKER RAPD	JALAJAKSHI.S
	4	MICROSATELLITES, SNP	JALAJAKSHI.S
JUNE THIRD WEEK	1	INTRODUCTION TO HETEROSIS	PRIYADARSHINI P.A
	2	HETEROSIS CHARACTERS	PRIYADARSHINI P.A
	3	STR,HER2- TESTING FOR BREAST CANCER	JALAJAKSHI.S
	4	FISH, FRAGILE X SYNDROME	JALAJAKSHI.S
JUNE FOURTH WEEK	1	ANIMAL BREEDING INTRODUCTIONINBREEDING AND GRADING	PRIYADARSHINI P.A
	2	CROSS BREEDING	PRIYADARSHINI P.A
	3	MICROSATELLITE MARKER ANALYSIS	JALAJAKSHI.S
	4	APLLICATION OF FORENSIC SCIENCE,	JALAJAKSHI.S
JULY FIRST WEEK	1	INTERNAL TEST	
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JULY SECOND WEEK	1	ARTIFICIAL INSEMINATION IN CATTLE	PRIYADARSHINI P.A
	2	FISH BREEDING	PRIYADARSHINI P.A
	3	MEDICOLEGAL ASPECTS	JALAJAKSHI.S
	4	INTRODUCTION TO BIOINFORMATICS	JALAJAKSHI.S
JULY THIRD WEEK	1	SELECTION, INDUCED POLYPLIIDY	PRIYADARSHINI P.A
	2	GYNONEGENESIS AND ANDROGENESIS	PRIYADARSHINI P.A
	3	TOOLS OF BIOINFORMATICS- BLAST	JALAJAKSHI.S
	4	FASTA	JALAJAKSHI.S
JULY FOURTH WEEK	1	BREEDING STATAGIES IN ANIMALS	PRIYADARSHINI P.A
	2	BREEDING STATAGIES IN POULTRY	PRIYADARSHINI P.A
	3	RASMOL	JALAJAKSHI.S
	4	APPLICATIONS OF BIOINFORMATICS	JALAJAKSHI.S
AUGUST FIRST WEEK	1	GENETIC CONCEPTS IN PLANTS	PRIYADARSHINI P.A
	2	DOMINANCE AND OVER DOMINANCE	PRIYADARSHINI P.A
	3	MATING BEHAVIOUR IN DROSOPHILA	JALAJAKSHI.S
	4	HYGENIC BEHAVIOUR IN HONEYBEE	JALAJAKSHI.S
AUGUST SECOND WEEK	1	HYBRIDISATION TECHNIQUES	PRIYADARSHINI P.A
	2	IDENTIFICATION OF HYBRID PLANTS	PRIYADARSHINI P.A
	3	NESTING BEHAVIOUR IN ANTS	JALAJAKSHI.S
	4	TERRITORIALITY BEHAVIOUR IN PRIMATES	JALAJAKSHI.S
AUGUST THIRD WEEK	1	INBREEDING DEPRESSION	PRIYADARSHINI P.A
	2	HYBRID VIGOUR IN RICE AND TOMATO	PRIYADARSHINI P.A
	3	CONFLICT BEHAVIOUR IN PRIMATES	JALAJAKSHI.S
	4	REVISION CLASS	JALAJAKSHI.S
AUGUST FOURTH WEEK	1	QUESTION PAPER DISCUSSION	
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