ACADEMIC ORGANISER (2015-2016)
Biotechnology
Semester I Paper I

Month and Number of Teaching Days	Syllabus Proposed to Be Covered Month Wise	Remarks
July (25) 11+6	UNIT-I: Cell Structure and function upto Eukaryotic cell structure (11 classes) UNIT-III: Mendel's Laws and mechanism of Inheritance- upto pleiotropism (6 classes)	
August(20) 11+6	UNIT-I: Cell Structure and function-upto chloroplast structure (4 classes) UNIT-II:Chromosome organization and cell division- up to euchromatin and heterochromatin (7 classes) UNIT-III: Mendel's Laws and mechanism of Inheritance- upto Phenocopies (6 classes)	
September (18) 5+7	UNIT-II:Chromosome organization and cell division- up tocell cycle (5 classes) UNIT IV: Linkage, Recombination and Sex determination upto mitotic crossing over (7 classes)	
October (17) 3+8	UNIT-II:Chromosome organization and cell division- up to Mechanism of apoptosis (3 classes) UNIT IV: Linkage, Recombination and Sex determination upto Colour blindness (8 classes)	

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Semester II Paper II

Month and Number of Teaching Days	Syllabus Proposed to Be Covered Month Wise	Remarks
December (21) 7+9	UNIT-I: Structure, Function of nucleic acids uptoforms of DNA(7 classes) UNIT-II: DNA replication upto Rolling circle mechanism (9 classes)	
January (19) 10+10	UNIT-I: Structure, Function of nucleic acids upto types of RNA (8 classes) UNIT-II: DNA replication up toRolling circle mechanism (6 classes) UNIT-III: Concepts of Biostatistics up to concepts of probability distribution (4 classes) UNIT-IV: Concepts of Bioinformatics up to Genbank (2 classes)	
February (24) 12+12	UNIT-III: Concepts of Biostatistics upto t-test applications (12classes) UNIT-IV: Concepts of Bioinformatics upto Multiple sequence alignment (12 classes)	
March (18) 4+2	UNIT-III: Concepts of Biostatistics up to statistic applications in biology (4 classes) UNIT-IV: Concepts of Bioinformatics upto sequence alignment. (2 classes)	

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ACADEMIC ORGANISER (2015-2016)
Biotechnology Paper II (Annual)

Month and Number of Teaching Days	Syllabus Proposed to Be Covered Month Wise	Remarks
June (19) 9+8	UNIT-I: Biomolecules up to Glycosides (9 classes) UNIT-II: Intermediary metabolism upto gluconeogenesis (8 classes)	
July (25) 10+10	UNIT-I: Biomolecules up to properties of amino acids (10 classes) UNIT-II: Intermediary metabolism up to dark reaction-C_3 cycle (10 classes)	
August (19) 7+8	UNIT-I: Biomolecules up to saturated and unsaturated fatty acids (7 classes) UNIT-II: Intermediary metabolism up to dark reaction-catabolism of amino acids (8 classes)	
September (18) 5+6	UNIT-I: Biomolecules up to enzyme catalyzed reactions (5 classes) UNIT-II: Intermediary metabolism up to beta oxidation (4 classes) UNIT-IV: Principles and applications of biophysical techniques upto Microscopy (2 classes)	
October (15) 5+5	UNIT III: Fundamentals of microbiology upto identification of fungal material (5 classes) UNIT-IV: Principles and applications of biophysical techniques upto UV-Vis spectroscopy (5 classes)	
November (25) 10+10	UNIT- III: Fundamentals of microbiology upto isolation and preservation of microorganisms (10 classes) UNIT-IV: Principles and applications of biophysical techniques upto chromatography (10 classes)	

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December(21) **10+11**	**UNIT- III: Fundamentals of microbiology upto bacterial growth kinetics (10 classes)** **UNIT-IV: Principles and applications of biophysical techniques upto dialysis (11 classes)**	
January (13) **5+4**	**UNIT- III: Fundamentals of microbiology upto pure culture characteristics (5 classes)** **UNIT-IV: Principles and applications of biophysical techniques upto applications of biophysical techniques (4 classes)**	

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ACADEMIC ORGANISER (2015-2016)
Biotechnology Paper III (Annual)

Month and Number of Teaching Days	Syllabus Proposed to Be Covered Month Wise	Remarks
June (19) 12	UNIT-I: Genes and Genome organization upto Satellite DNA (12 classes)	
July (22) 11	UNIT-I: Genes and Genome organization upto ribosomal genes (11 classes)	
August (22) 11	UNIT –II: Gene Expression & Gene Regulation-up to wobble hypothesis (11classes)	
September (6) 4	UNIT –II: Gene Expression & Gene Regulation-up to eukaryotic translation (4 classes)	
October (8) 3	UNIT –II: Gene Expression & Gene Regulation-up to regulation of gene expression in prokaryotes (3classes)	
November (24) 16	UNIT –II: Gene Expression & Gene Regulation-up to Lac operon (2 classes) UNIT-III: Recombinant DNA Technology upto Identification of cloned genes (14 classes)	
December (19) 13	UNIT-III: Recombinant DNA Technology upto DNA Fingerprinting (4 classes) UNIT-IV: Basics of Immunology upto antigen antibody reactions (9 classes)	
January (13) 9	UNIT-IV: Basics of Immunology upto autoimmune diseases (9 classes)	

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ACADEMIC ORGANISER (2015-2016)
Biotechnology Paper IV (Annual)

Month and Number Of Teaching Days	Syllabus Proposed to Be Covered Month Wise	Remarks
June (19) 10	UNIT-I:Animal Biotechnology– up to preservation of cell lines.(10 classes)	
July (25) 11	UNIT-I:Animal Biotechnology - up to methods of gene transfer(11classes)	
August (19) 05	UNIT-II: Animal Biotechnology - up to Invivo gene therapy (02 classes) UNIT-II: Plant Biotechnology -up to plant cell culture media (3 classes)	
September (18) 8	UNIT-II: Plant Biotechnology -up to mass cultivation of cell cultures (8classes)	
October (15) 7	UNIT-II: Plant Biotechnology -up to therapeutic proteins from transgenic plants (5 classes) UNIT-III: Industrial Biotechnology- up to primary metabolites. (2 classes)	
November (23) 12+4	UNIT-III: Industrial Biotechnology- up to animals as bioreactors (16 classes)	
December (21) 11+4	UNIT-III:Industrial Biotechnology up to patenting issues (6 classes) UNIT-IV:Environmental Biotechnology- up to microbiological analysis of milk (9classes)	
January (13) 7	UNIT-IV:Environmental Biotechnology upto Bioremediation (7classes)	

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