

Semester 1

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Chemical Biology	Chemical Biology	Chemical Biology	Chemical Biology
2	MJC	Introduction to Cell Biology	Introduction to Cell Biology	Introduction to Cell Biology	Introduction to Cell Biology
3	MJC	Maths-1	Maths-1	Maths-1	Maths-4
4		Statistics -1	Statistics -1	Statistics -1	Statistics -4
5	SEC	Basic Computational Skills	Basic Computational Skills	Basic Computational Skills	Basic Computational Skills
6	GE	Fundamentals of Biophysics	Fundamentals of Biophysics	Fundamentals of Biophysics	Fundamentals of Biophysics
7	AEC	Commulative English	Commulative English	Commulative English	Commulative English
8	IKS	Indian Knowledge System	Indian Knowledge System	Indian Knowledge System	Indian Knowledge System
9	VEC	Environmental Studies	Environmental Studies	Environmental Studies	Environmental Studies
Student will chose any three subjects and we will be calling it as sub1, 2, and 3					

Semester 2

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Fundamentals of Biomolecules	Fundamentals of Biomolecules	Fundamentals of Biomolecules	Fundamentals of Biomolecules
2	MJC	Introduction to Microbiology	Introduction to Microbiology	Introduction to Microbiology	Fundamentals of Programming
3a	GE	Maths-2	Maths-2	Maths-2	Maths-2
3b		Statistics-2	Statistics -2	Statistics -2	Statistics -2
4	AEC	Advanced Communication Skills	Advanced Communication Skills	Advanced Communication Skills	Advanced Communication Skills
5	VEC	Health and Nutrition	Health and Nutrition	Health and Nutrition	Health and Nutrition
6	VSEC	Fundamentals of Programming / Applied Haematological Techniques	Fundamentals of Programming / Applied Haematological Techniques	Fundamentals of Programming / Applied Haematological Techniques	Introduction to Microbiology

7	OE	Finance/Psychology/Management	Finance/Psychology/Management	Finance/Psychology/Management	Finance/Psychology/Management
8	CC	Yoga and Meditation -I	Yoga and Meditation -I	Yoga and Meditation -I	Yoga and Meditation -I
For third semester 1 subject will be dropped, from the remaining 2 subjects 1 will be called major and other will be minor					

Semester 3

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Introduction to Enzymology	Introduction to Enzymology	Introduction to Enzymology	Introduction to Biological Databases
2	MJC	Principles of Genetics	Principles of Genetics	Principles of Genetics	Principles of Genetics
3	MNC	Introduction to Biological Databases	Introduction to Biological Databases	Introduction to Biological Databases	Introduction to Enzymology
4	GE	Introduction to Biophysical techniques	Introduction to Biophysical techniques	Introduction to Biophysical techniques	Introduction to Biophysical techniques
6	AEC	AEC-I / German-I	AEC-I / German-I	AEC-I / German-I	AEC-I / German-I
7	VSEC	Programming in Linux	Programming in Linux	Programming in Linux	Programming in Linux
8	CC	Sports-I / NSS-I/ NCC-I/ Yoga and Meditation-II	Sports-I / NSS-I/ NCC-I/ Yoga and Meditation-II	Sports-I / NSS-I/ NCC-I/ Yoga and Meditation-II	Sports-I / NSS-I/ NCC-I/ Yoga and Meditation-II
9	FP	Field Project	Field Project	Field Project	Field Project

Semester 4

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Fundamentals of Molecular Biology	Fundamentals of Molecular Biology	Fundamentals of Molecular Biology	Introduction to Biological Sequence Alignment
2	MJC	Introduction to Microbial Metabolism	Introduction to Metabolism and Bioenergetics	Introduction to Metabolism and Bioenergetics	Introduction to Metabolism and Bioenergetics

3	MNC	Introduction to Biological Sequence Alignment	Introduction to Biological Sequence Alignment	Introduction to Biological Sequence Alignment	Fundamentals of Molecular Biology
4	MNC	Advanced Bianalytical Techniques	Advanced Bianalytical Techniques	Advanced Bianalytical Techniques	Advanced Bianalytical Techniques
5	AEC	AEC-II / German-II	AEC-II / German-II	AEC-II / German-II	AEC-II / German-II
	GE/OE	Introduction to Python	Introduction to Python	Introduction to Python	Introduction to Python
6	VSEC	Biological Data analysis and Visulization	Biological Data analysis and Visulization	Biological Data analysis and Visulization	Biological Data analysis and Visulization
7	CC	Sports-II / NSS-II/ NCC-II	Sports-II / NSS-II/ NCC-II	Sports-II / NSS-II/ NCC-II	Sports-II / NSS-II/ NCC-II
8	CEP	Community Engagement Programme	Community Engagement Programme	Community Engagement Programme	Community Engagement Programme

Semester 5

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Microbial Physiology	Introduction to Anatomy and Physiology	Introduction to Anatomy and Physiology	Multiomics
2	MJC	Essentials of Genetic Engineering	Essentials of Genetic Engineering	Essentials of Genetic Engineering	Structural bioinformatics
3	MJC	Fundamentals of Immunology	Fundamentals of Immunology	Fundamentals of Immunology	Cheminformatics
4	MJE	Environmental and Soil biology	Animal and Plant Tissue culture	Animal and Plant Tissue culture	Fundamentals of Immunology
5		Introduction to Data Science	Introduction to Data Science	Introduction to Data Science	Essentials of Genetic Engineering
6	VSEC	Multiomics-I / Medical Coding	Multiomics-I / Medical Coding	Multiomics-I / Medical Coding	Introduction to Data Science
7	FP	Field Project	Field Project	Field Project	Field Project

8	CC	Sports/NSS/Health & Wellness	Sports/NSS/Health & Wellness	Sports/NSS/Health & Wellness	Sports/NSS/Health & Wellness
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Semester 6

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Medical Microbiology	Medical Biotechnology	Clinical Biochemistry	Database Management-I
2	MJC	Introduction to Industrial Microbiology	Introduction to Industrial Biotechnology	Introduction to Industrial Biochemistry	Introduction to Computer-Aided Drug Design
3	MJC	Food and Dairy Microbiology	Food and Agriculture Biotechnology	Basics of Neurochemistry	Introduction to AI/ML for Biologists
4	MJE	Introduction to Computer-Aided Drug Design	Introduction to Computer-Aided Drug Design	Introduction to Computer-Aided Drug Design	Web Development
5		Entrepreneurship, Regulatory Guidelines, GxP	Entrepreneurship, Regulatory Guidelines, GxP	Entrepreneurship, Regulatory Guidelines, GxP	Introduction to Cloud Computing
7	VSEC	Introduction to AI/ML for Biologists	Introduction to AI/ML for Biologists	Introduction to AI/ML for Biologists	Advanced Programming for Bioinformatics
8	OJT	On-the-Job Training	On-the-Job Training	On-the-Job Training	On-the-Job Training

Semester 7 (Honors/ Honours with Research)

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Bacteriology and Virology	Advanced Immunology and Toxicology	Advanced Immunology and Toxicology	Molecular Modeling and Simulation
2	MJC	Agricultural Microbiology	Nanotechnology	Nanotechnology	Database Management-II
	MJC	Applied Microbiology	Cancer & Developmental Biology	Nutritional Biochemistry	DSC
4	MJE	Sustainable Bioprocesses	Sustainable Bioprocesses	Sustainable Bioprocesses	Introduction to Pathway and Networks
		Antimicrobial resistance	Protein purification and Downstream processing	Protein purification and Downstream processing	Fundamentals of Software testing

	RM	Research Methodology	Research Methodology	Research Methodology	Research Methodology
6		Industrial Skills for Microbiologists-I	Industrial Skills for Biotechnologists-I	Industrial Skills for Biochemists-I	Industrial Skills for Bioinformatics-I
	OR				
	RP	Research Project	Research Project	Research Project	Research Project

Semester 8 (Honors)

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Pharmaceutical Microbiology	Pharmaceutical Biotechnology	Plant Biochemistry	Medical Image Processing
2	MJC	Microbial Quality Control and testing	Advancement in Biotechnology	Advancement in Biochemistry	Introduction to Big Data
3	MJC	Industrial Skills for Microbiologists-II	Industrial Skills for Biotechnologists-II	Industrial Skills for Biochemists-II	Industrial Skills for Bioinformatics - II
4	MJE	Microbial Ecology	Forensic Science	Forensic Science	Molecular Modeling and Simulation
5		MOOCs	MOOCs	MOOCs	MOOCs
6	RP/OJT	Research Project/OJT	Research Project/OJT	Research Project/OJT	Research Project/OJT
7		Biodiversity and Conservation	Biodiversity and Conservation	Biodiversity and Conservation	Pharmacogenomics and Precision Medicine

Semester 8 (Honors with Research)

Sr. No.	Type	Microbiology	Biotechnology	Biochemistry	Bioinformatics
		Paper Title	Paper Title	Paper Title	Paper Title
1	MJC	Pharmaceutical Microbiology	Pharmaceutical Biotechnology	Plant Biochemistry	Medical image processing

2	MJC	Microbial Quality Control and testing	Advancement in Biotechnology	Advancement in Biochemistry	Advancement in Bioinformatics
3	MJC	Industrial Skills for Microbiologists-II	Industrial Skills for Biotechnologists-II	Industrial Skills for Biochemists-II	Industrial Skills for Bioinformatics - II
4	MJE	Microbial Ecology	Forensic Science	Forensic Science	Molecular Modeling and Simulation
5		MOOCs	MOOCs	MOOCs	MOOCs
6	RP	Research Project	Research Project	Research Project	Research Project