

SARDAR PATEL UNIVERSITY
B.Sc. Semester: V
(Under Choice Based Credit Scheme)
Syllabus with Effect from: 2023-24

Course Type	Course Code	Name Of Course	T / P	Credit	Contact Hours Per Week	Exam Duration in hrs	Component of Marks		
							Internal	External	Total
Core Course (Any One Group)									
Chemistry	US05CCHE51	Organic Chemistry	T	4	4	3	30	70	100
	US05CCHE52	Inorganic Chemistry	T	4	4	3	30	70	100
	US05CCHE53	Physical Chemistry	T	4	4	3	30	70	100
	US05CCHE54	Analytical Chemistry	T	4	4	3	30	70	100
	US05CCHE55	Chemistry Practicals	P	8	16	12	45	105	150
Electronics	US05CELE51	Instrumentation	T	4	4	3	30	70	100
	US05CELE52	Digital System	T	4	4	3	30	70	100
	US05CELE53	8-Bit Microprocessor Programming & Applications	T	4	4	3	30	70	100
	US05CELE54	Analog Communication	T	4	4	3	30	70	100
	US05CELE55	Practicals	P	8	16	12	45	105	150
Physics	US05CPHY51	Classical Mechanics	T	4	4	3	30	70	100
	US05CPHY52	Mathematical Methods	T	4	4	3	30	70	100
	US05CPHY53	Thermodynamics and Statistical Mechanics	T	4	4	3	30	70	100
	US05CPHY54	Analog and Digital Circuits	T	4	4	3	30	70	100
	US05CPHY55	Practicals	P	8	16	12	45	105	150
Mathematics	US05CMTH51	Real Analysis-I	T	4	4	3	30	70	100
	US05CMTH52	Real Analysis-II	T	4	4	3	30	70	100
	US05CMTH53	Group Theory	T	4	4	3	30	70	100
	US05CMTH54	Metric Spaces and Topological Spaces	T	4	4	3	30	70	100
	US05CMTH55	Mathematics Practical	P	8	16	12	45	105	150

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Biochemistry	US05CBCH51	Molecular Biochemistry	T	4	4	3	30	70	100
	US05CBCH52	Enzymology	T	4	4	3	30	70	100
	US05CBCH53	Human Metabolism	T	4	4	3	30	70	100
	US05CBCH54	Human Physiology	T	4	4	3	30	70	100
	US05CBCH55	Practicals	P	8	16	12	45	105	150
Biotechnology	US05CBIT51	Molecular Biology & Genetics	T	4	4	3	30	70	100
	US05CBIT52	Transgenic	T	4	4	3	30	70	100
	US05CBIT53	R-DNA Technology	T	4	4	3	30	70	100
	US05CBIT54	Immunology	T	4	4	3	30	70	100
	US05CBIT55	Practicals	P	8	16	12	45	105	150
Botany	US05CBOT51	Microbiology and Phycology	T	4	4	3	30	70	100
	US05CBOT52	Molecular Biology and Bioinformatics	T	4	4	3	30	70	100
	US05CBOT53	Plant Ecology and Phytogeography	T	4	4	3	30	70	100
	US05CBOT54	Plant Systematics	T	4	4	3	30	70	100
	US05CBOT55	Practicals	P	8	16	12	45	105	150
Microbiology	US05CMIC51	Molecular Genetics	T	4	4	3	30	70	100
	US05CMIC52	Microbial Metabolism	T	4	4	3	30	70	100
	US05CMIC53	Virology and Mycology	T	4	4	3	30	70	100
	US05CMIC54	Fermentation Technology-I	T	4	4	3	30	70	100
	US05CMIC55	Practicals	P	8	16	12	45	105	150
Zoology	US05CZOO51	Invertebrate	T	4	4	3	30	70	100
	US05CZOO52	Physiology	T	4	4	3	30	70	100
	US05CZOO53	Genetics & Biotechnology	T	4	4	3	30	70	100
	US05CZOO54	Ecology & Animal Behaviour	T	4	4	3	30	70	100
	US05CZOO55	Practicals	P	8	16	12	45	105	150

Course Type	Course Code	Name Of Course	T /P	Credit	Contact Hours Per Week	Exam Duration in hrs	Component of Marks		
							Internal	External	Total
Industrial Chemistry (Voc.)	US05CICV51	Organic Chemistry	T	4	4	3	30	70	100
	US05CICV52	Technology of Petroleum & Petroleum Products	T	4	4	3	30	70	100
	US05CICV53	Heavy & Fine Chemicals	T	4	4	3	30	70	100
	US05CICV54	Mass Transfer	T	4	4	3	30	70	100
	US05CICV55	Practicals	P	8	16	12	45	105	150
Industrial Chemistry	US05CICH51	Advance Organic Chemistry	T	4	4	3	30	70	100
	US05CICH52	Petroleum and Petroleum Products	T	4	4	3	30	70	100
	US05CICH53	Chemical Process Industries	T	4	4	3	30	70	100
	US05CICH54	Fluid Mechanics & Mechanical Operations	T	4	4	3	30	70	100
	US05CICH55	Practicals	P	8	16	12	45	105	150
Computer Science	US05CCSC51	Object Oriented Programming Using C++	T	4	4	3	30	70	100
	US05CCSC52	Visual Programming Through VB .NET	T	4	4	3	30	70	100
	US05CCSC53	Relational Database Management System	T	4	4	3	30	70	100
	US05CCSC54	Computer Networks	T	4	4	3	30	70	100
	US05CCSC55	Practicals	P	8	16	12	45	105	150

Course Type	Course Code	Name Of Course	T /P	Credit	Contact Hours Per Week	Exam Duration in hrs	Component of Marks		
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Electronics & Communication	US05CELC51	Analog Circuits and Measuring Instruments	T	4	4	3	30	70	100
	US05CELC52	Introduction to 8-bit 8085 Microprocessor	T	4	4	3	30	70	100
	US05CELC53	Digital Communication System and Antenna	T	4	4	3	30	70	100
	US05CELC54	Data Communication and Network	T	4	4	3	30	70	100
	US05CELC55	Practicals	P	8	16	12	45	105	150
Statistics	US05CSTA51	Mathematical Statistics	T	4	4	3	30	70	100
	US05CSTA52	Theory of Estimation	T	4	4	3	30	70	100
	US05CSTA53	Survey Sampling	T	4	4	3	30	70	100
	US05CSTA54	Statistical Quality Control	T	4	4	3	30	70	100
	US05CSTA55	Practical : Statistical Data Analysis Manually and using Software Packages	P	8	16	12	45	105	150