



Second Year (Lateral Entry) Teaching Scheme

Admission Year 2026-27

**Bachelor of Technology (Lateral Entry)
CSE (Artificial Intelligence)**

Faculty of Engineering & Technology

Parul University Vadodara,

Gujarat, India

Semester - 3

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
	Basic Science Course (BSC)-IV (2026-27)	3	3	-	-	20	-	20	60	-	40	-	100
03010503P C01	Data Structure and Algorithms	3	3	-	-	20	-	20	60	-	40	-	100
	Engineering Science Course (ESC)-VI (2026-27)	3	2	2	-	20	20	20	60	30	40	25	150
03010503P C02	Data Structure and Algorithms Laboratory	2	-	4	-	-	20	-	-	30	-	25	50
	Humanities and Social Science, including Management Course (HSMC)-II (2026-27)	2	1	2	-	40	20	-	60	30	40	25	150
03010503P C05	Operating System	3	3	-	-	20	-	20	60	-	40	-	100
	Mandatory Course (MNC)-III (2026-27)	0	1	-	-	-	-	50	-	-	20	-	50
03010503P C06	Operating System Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03010503P C03	JAVA Programming	3	3	-	-	20	-	20	60	-	40	-	100
03010503P C04	JAVA Programming Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03010504P C05	Database Management System	3	3	-	-	20	-	20	60	-	40	-	100
03010504P C06	Database Management System Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	Total	25	19	14									1050

Semester - 3 : Basic Science Course (BSC)-IV (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03019103B S01	Discrete Mathematics	3	3	-	-	20	-	20	60	-	40	-	100

Semester - 3 : Engineering Science Course (ESC)-VI (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03010703E S03	Computer Organization and Microprocessor Architecture	2	2	-	-	-	-	-	60	-	40	-	100
03010703E S04	Computer Organization and Microprocessor Architecture Lab	1	-	2	-	-	-	-	-	30	-	25	50

Semester - 3 : Humanities and Social Science, including Management Course (HSMC)-II (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03010003H M01	Functional Communication Skills	2	1	2	-	40	20	-	60	30	40	25	150

Semester - 3 : Mandatory Course (MNC)-III (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
17013003M C01	Indian Constitution	0	1	-	-	-	-	50	-	-	20	-	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50

Semester - 4

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
	Professional Elective Courses (PECs-I) (2026-27)	4	3	2	-	20	20	20	60	30	40	25	150
03010504P C01	Computer Network	3	3	-	-	20	-	20	60	-	40	-	100
03010504P C02	Computer Network Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	Multidisciplinary Open Professional Electives Courses (MOP ECs) 2026-27)	3	3	-	-	-	-	40	60	-	40	25	100
03010504P C05	Design and Analysis of Algorithm	3	3	-	-	20	-	20	60	-	40	-	100
	Mandatory Course (MNC)-III (2026-27)	0	1	-	-	-	-	50	-	-	20	-	50
03010504P C06	Design and Analysis of Algorithm Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	Basic Science Courses (BSC-V)	3	3	-	-	20	-	20	60	-	40	-	100
	Humanities and Social Science, including Management Courses (HSMC)	1	-	2	-	-	-	100	-	-	40	-	100
	Total	19	16	8									800

Semester - 4 : Professional Elective Courses (PECs-I) (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03012404P E03	Application of AI in Healthcare	3	3	-	-	20	-	20	60	-	40	-	100
03012404P E05	Social Network Analysis	3	3	-	-	20	-	20	60	-	40	-	100
03012404P E07	Bigdata technologies and Database System	3	3	-	-	20	-	20	60	-	40	-	100
03010504P E09	Python Programming with Full Stack Development	3	3	-	-	20	-	20	60	-	40	-	100

Semester - 4 : Professional Elective Courses (PECs-I- Laboratory) (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03012404P E04	Application of AI in Healthcare Laboratory	1	-	2	-		20			30		25	50
03012404P E06	Social Network Analysis Laboratory	1	-	2	-		20			30		25	50
03012404P E08	Bigdata technologies and Database System Laboratory	1	-	2	-		20			30		25	50
03010504P E10	Python Programming with Full Stack Development Laboratory	1	-	2	-		20			30		25	50

Semester - 4 : Multidisciplinary Open Professional Electives Courses (MOPECs) (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
15M10504 UE01	Introduction to Cognitive Psychology	3	3	-	-	-	-	40	60	-	40		100
15M10504 UE02	Human Behavior	3	3	-	-	-	-	40	60	-	40		100
15M10504 UE03	Emotional Intelligence	3	3	-	-	-	-	40	60	-	40		100
19M10004 UE01	Psychiatry: An overview	3	3	-	-	-	-	40	60	-	40		100
19M10004 UE02	Philosophy and Critical Thinking	3	3	-	-	-	-	40	60	-	40		100

Semester – 4 : Basic Science Courses (BSC-V) (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03019103B S02	Probability Statistics and Numerical Methods	3	3	0	0	20	-	20	60	-	40		100

Semester - 4 : Mandatory Course (MNC)-III (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
17013003M C01	Indian Constitution	0	1	-	-	-	-	50	-	-	20	-	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50

Semester - 4 : Humanities and Social Science, including Management Course (HSMC) (2026-27)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03010004H M01	Professional Soft Skills - I	1	-	2	-	-	-	100	-	-	40	25	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50