



**First Year Teaching Scheme**

**Admission Year 2026-27**

**Master of Technology  
Information Technology**

**Faculty of Engineering & Technology**

**Parul University**

**Vadodara, Gujarat, India**

**Semester - 1**

						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.	
03020501P C01	Advanced Data Structures and Algorithms	3	3	-	-	20	-	20	60	-	50	-	100
03020501P C02	Advanced Data Structures and Algorithms Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020501P C03	Mathematical Foundations of Information Technology	4	4	-	-	20	-	20	60	-	50	-	100
03020501P C05	Advanced Machine Learning	3	3	-	-	20	-	20	60	-	50	-	100
03020501P C06	Advanced Machine Learning Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	Humanities and Social Science, including Management Course (HSMC)-I (2025-26)	4	-	-	-	-	-	-	-	-	-	-	
	Mandatory Course (MNC)-I (2025-26)	0	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course (PEC)-I (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course LAB (PEC LAB)-I (2025-26)	1	-	-	-	-	-	-	-	-	-	-	
	Total	20	10	4									400

**Semester - 1 : Humanities and Social Science, including Management Course (HSMC)-I (2025-26)**

						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.	
03020201H M01	Research Methodology & IPR	4	4	-	-	20	-	20	60	-	50	-	100

**Semester - 1 : Mandatory Course (MNC)-I (2025-26)**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Mark s
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03020001M C01	English for Research Paper Writing	0	2	-	-	-	-	50	-	-	25	-	50
03021601M C01	Disaster Management	0	2	-	-	-	-	50	-	-	25	-	50

**Semester - 1 : Professional Elective Course (PEC)-I (2025-26)**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Mark s
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03020501P E01	Information and Network Security	3	3	-	-	20	-	20	60	-	50	-	100
03020501P E03	Information Theory & Coding	3	3	-	-	20	-	20	60	-	50	-	100
03020501P E05	Web Analytics and Development	3	3	-	-	20	-	20	60	-	50	-	100

**Semester - 1 : Professional Elective Course LAB (PEC LAB)-I (2025-26)**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Mark s
Code	Subject	Credit	Lect	Lab	Tut	T	P	C E	T	P	Int. + Ext.	Int. + Ext.	
03020501P E02	Information and Network Security Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020501P E04	Information Theory & Coding Laboratory	1	-	2	-	-	20	-	-	30	-	25	50

**Semester - 1 : Professional Elective Course LAB (PEC LAB)-I (2025-26)**

						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.	
03020501PE06	Web Analytics and Development Laboratory	1	-	2	-	-	20	-	-	30	-	25	50

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

## Semester - 2

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	C E	T	P	Int. + Ext.	Int. + Ext.	
03020502P C01	Big Data Analytics	3	3	-	-	20	-	20	60	-	50	-	100
03020502P C02	Big Data Analytics Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020502P C03	Soft Computing	3	3	-	-	20	-	20	60	-	50	-	100
03020502P C04	Soft Computing Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	Mandatory Course (MNC)-II (2025-26)	0	-	-	-	-	-	-	-	-	-	-	
	Multidisciplinary Open Professional Electives Course (MOPEC)-I (2025-26)	4	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course (PEC)-II (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course (PEC)-III (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course LAB (PEC LAB)-II (2025-26)	1	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course LAB (PEC LAB)-III (2025-26)	1	-	-	-	-	-	-	-	-	-	-	
	Total	20	6	4									300

## Semester - 2 : Mandatory Course (MNC)-II (2025-26)

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	C E	T	P	Int. + Ext.	Int. + Ext.	
03020002M C01	Pedagogy Studies	0	2	-	-	50	-	-	-	-	25	-	50
03020002M C02	Personality Development through Life Enlightenment Skills	0	2	-	-	-	-	-	-	-	25	-	50

**Semester - 2 : Mandatory Course (MNC)-II (2025-26)**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	C E	T	P	Int. + Ext.	Int. + Ext.	
03023302M C01	Indian Cyber Law and Ethics	0	2	-	-	-	-	-	50	-	25	-	50

**Semester - 2 : Multidisciplinary Open Professional Electives Course (MOPEC)-I (2025-26)**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	C E	T	P	Int. + Ext.	Int. + Ext.	
03020202U E01	Augmented Reality and Virtual Reality	4	4	-	-	20	-	20	60	-	50	-	100
03020202U E02	Cyber Physical Systems	4	4	-	-	20	-	20	60	-	50	-	100
03020202U E03	Social Networking	4	4	-	-	20	-	20	60	-	50	-	100
03020502U E01	Business Analytics	4	4	-	-	20	-	20	60	-	50	-	100
03020602U E01	Industrial Safety	4	4	-	-	20	-	20	60	-	50	-	100
03020702U E01	IOT and Smart Cities	4	4	-	-	-	-	-	60	-	50	-	100
03022002U E01	Waste to Energy	4	4	-	-	20	-	20	60	-	50	-	100

**Semester - 2 : Professional Elective Course (PEC)-II (2025-26)**

						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.	
03020502P E01	Blockchain and Smart Contracts	3	3	-	-	20	-	20	60	-	50	-	100
03020502P E03	Deep Learning	3	3	-	-	20	-	20	60	-	50	-	100
03020502P E05	Distributed Database	3	3	-	-	20	-	20	60	-	50	-	100

**Semester - 2 : Professional Elective Course (PEC)-III (2025-26)**

						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.	
03020502P E07	Cloud Computing and Application	3	3	-	-	20	-	20	60	-	50	-	100
03020502P E09	Service Oriented Architecture	3	3	-	-	20	-	20	60	-	50	-	100
03020502P E11	Generative - AI	3	3	-	-	20	-	20	60	-	50	-	100

**Semester - 2 : Professional Elective Course LAB (PEC LAB)-II (2025-26)**

						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.	
03020502P E02	Blockchain and Smart Contracts Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020502P E04	Deep Learning Laboratory	1	-	2	-	-	20	-	-	30	-	25	50

**Semester - 2 : Professional Elective Course LAB (PEC LAB)-II (2025-26)**

						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.	
03020502P E06	Distributed Database Laboratory	1	-	1	-	-	20	-	-	30	-	25	50

**Semester - 2 : Professional Elective Course LAB (PEC LAB)-III (2025-26)**

						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.	
03020502P E08	Cloud Computing and Application Laboratory	1	-	1	-	-	20	-	-	30	-	25	50
03020502P E10	Service Oriented Architecture Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020502P E12	Generative - AI Laboratory	1	-	2	-	-	20	-	-	30	-	25	50

**Lect** - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

**Theory Passing % : 50 Practical Passing % : 50**