



**First Year Teaching Scheme**

**Admission Year 2026-27**

**Master of Technology  
Structural Engineering**

**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.	
03020901P C01	Structural Dynamics	3	3	-	-	20	-	20	60	-	50	-	100
03020901P C02	Structural Dynamics Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020901P C03	Design of Advanced Concrete Structures	3	3	-	-	20	-	20	60	-	50	-	100
03020901P C04	Design of Advanced Concrete Structures Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
03020901P C06	Advanced Concrete Laboratory	2	-	4	-	-	20	-	-	30	-	25	50
	Humanities and Social Science, including Management Course (HSMC)-I	4	-	-	-	-	-	-	-	-	-	-	
	Mandatory Course (MNC)-I	0	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course (PEC)-I (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course (PEC)-II (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Total	20	6	8									350

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

						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**

						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.	
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 Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
03020901P E01	Theory of Structural Stability	3	3	-	-	20	-	20	60	-	50	-	100
03020901P E03	Advanced Concrete Technology	3	3	-	-	20	-	20	60	-	50	-	100
03020901P E05	Theory and Applications of Cement Composites	3	3	-	-	20	-	20	60	-	50	-	100

**Semester - 1: 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.	
03020901P E07	Structural Health Monitoring	3	3	-	-	20	-	20	60	-	50	-	100
03020901P E09	Finite Element Analysis of Structure	3	3	-	-	20	-	20	60	-	50	-	100

**Semester - 1: 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.	
03020901PE11	Advanced Design of Foundations	3	3	-	-	20	-	20	60	-	50	-	100

**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	CE	T	P	Int. + Ext.	Int. + Ext.	
03020902P C01	Advanced Design of Steel Structures	3	3	0	0	20	-	20	60	-	50	-	100
03020902P C02	Advanced Design of Steel Structures Laboratory	1	0	2	0	-	20	-	-	30	-	25	50
03020902P C03	Design of Earthquake Resistant Structures	3	3	0	0	20	-	20	60	-	50	-	100
03020902P C04	Design of Earthquake Resistant Structures Laboratory	1	0	2	0	-	20	-	-	30	-	25	50
03020902P C06	Soft Computing for Structural Engineering Laboratory	2	0	4	0	-	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)-III (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Professional Elective Course (PEC)-IV (2025-26)	3	-	-	-	-	-	-	-	-	-	-	
	Total	20	6	8	0								350

## 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	CE	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	-	-	-	-	50	-	-	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	CE	T	P	Int. + Ext.	Int. + Ext.	
03023302MC01	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	CE	T	P	Int. + Ext.	Int. + Ext.	
03020202UE01	Augmented Reality and Virtual Reality	4	4	-	-	20	-	20	60	-	50	-	100
03020202UE02	Cyber Physical Systems	4	4	-	-	20	-	20	60	-	50	-	100
03020202UE03	Social Networking	4	4	-	-	20	-	20	60	-	50	-	100
03020502UE01	Business Analytics	4	4	-	-	20	-	20	60	-	50	-	100
03020602UE01	Industrial Safety	4	4	-	-	20	-	20	60	-	50	-	100
03020702UE01	IOT and Smart Cities	4	4	-	-	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.	
03020902PE01	Design of Prestressed Concrete Structures	3	3	0	0	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.	
03020902P E03	Composite Materials	3	3	0	0	20	-	20	60	-	50	-	100
03020902P E05	Soil Structure Interaction	3	3	0	0	20	-	20	60	-	50	-	100

**Semester - 2: Professional Elective Course (PEC)-IV (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.	
03020902P E07	Condition Monitoring and Reliability Assessment	3	3	0	0	20	-	20	60	-	50	-	100
03020902P E09	Heritage Conservation and Management	3	3	0	0	20	-	20	60	-	50	-	100
03021602P E07	Cost Management of Engineering Projects	3	3	0	0	20	-	20	60	-	50	-	100

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

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