



**Second Year Teaching Scheme**  
**Admission Year 2026-27**

**Bachelor of Technology**  
**Mechatronics Engineering**

**Parul University**

**Vadodara, Gujarat, India**

Semester – 3

				Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
				(Hours / Week)										
NCrF Credit Level	Subject Code	Subject Name	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	Int.+Ext.	
5	03012303PC01	Control Theory	3	3	-	-	20	-	20	60	-	40	-	100
	03012303PC02	Control Theory Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	03011303PC01	Manufacturing Process	3	3	-	-	20	-	20	60	-	40	-	100
	03011303PC02	Manufacturing Process Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	03011303PC03	Theory of Machines	2	2	-	-	20	-	20	60	-	40	-	100
	03011303PC04	Theory of Machines Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	03011303PC05	Specialised Electrical Machines	2	2	-	-	20	-	20	60	-	40	-	100
	03011303PC06	Specialised Electrical Machines Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	03011303ES01	Analog and Digital Electronics	4	4	-	-	20	-	20	60	-	40	-	100
	03011303ES02	Analog and Digital Electronics Laboratory	1	-	2	-	-	20	-	-	30	-	25	50
	03019103BS03	Theory of Complex Variable, Partial Differential Equations	3	3	-	-	20	-	20	60	-	40	-	100
	03010003HM01	Functional Communication Skills	2	1	2	-	20	20	20	60	30	40	25	150
	17013003MC01	Indian Constitution	0	1	-	-	-	-	50	-	-		-	50
	<b>Total credits</b>			<b>24</b>										

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

Theory Passing % : 40 Practical Passing % : 50

**Semester – 4**

NCrF Credi t Level	Subject Code	Subject Name	Credit	Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical )	Total Marks	
				(Hours / Week)				T	P	CE	T	P	Int.+Ext.		Int.+Ext.
				Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	Int.+Ext.		
5	03012304PC01	Basics of Signal & Systems	3	3	-	-	20	-	20	60	-	40	-	100	
	03012304PC02	Basics of Signal & Systems Laboratory	1	-	2	-	-	20	-	-	30	-	25	50	
	03011304PC01	Sensors and Transducers	2	2	-	-	20	-	20	60	-	40	-	100	
	03011304PC02	Sensors and Transducers Laboratory	1	-	2	-	-	20	-	-	30	-	25	50	
	03011304PC05	Microcontrollers and Interfacing	3	3	-	-	20	-	20	60	-	40	-	100	
	03011304PC06	Microcontrollers and Interfacing Laboratory	1	-	2	-	-	20	-	-	30	-	25	50	
	03010004HM01	Professional Soft Skills - I	1	-	-	2	-	20	-	-	30	-	25	50	
	03010004MC01	NCC / NSS / Yoga / Mental Health / Sports	0	1	-	-	-	-	50	-	-	-	25	50	
	<b>Professional Elective Course I</b>														
	03011304PE01	Engineering Materials and Metallurgy	3	3	-	-	20	-	20	60	-	40	-	100	
	03012304PE03	Energy Systems & Sustainable Technologies	3	3	-	-	20	-	20	60	-	40	-	100	
	03011304PE05	Biomedical and Assistive Technologies	3	3	-	-	20	-	20	60	-	40	-	100	
	<b>Professional Elective Course Lab-I</b>														
	03011304PE02	Engineering Materials and Metallurgy Laboratory	1	-	2	-	-	20	-	-	30	-	25	50	
	03012304PE04	Energy Systems & Sustainable Technologies Laboratory	1	-	2	-	-	20	-	-	30	-	25	50	
	03011304PE06	Biomedical and Assistive Technologies Laboratory	1	-	2	-	-	20	-	-	30	-	25	50	
	<b>Multidisciplinary Open Professional Electives Courses (MOPECs-II)</b>														
	15M10504UE01	Introduction to Cognitive Psychology	3	3	-	-	20	-	20	60	-	40	-	100	

15M10504UE02	Human Behaviour	3	3	-	-	20	-	20	60	-	40	-	100
15M10504UE03	Emotional Intelligence	3	3	-	-	20	-	20	60	-	40	-	100
19M10004UE01	Psychiatry: An overview	3	3	-	-	20	-	20	60	-	40	-	100
19M10004UE02	Philosophy and Critical Thinking	3	3	-	-	20	-	20	60	-	40	-	100
	<b>Total credits</b>	<b>19</b>											

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Theory Passing % : 40 Practical Passing % : 50