Regulation -23

(Under New Education Policy)

Academic Course Credit System and Evaluation Scheme

B.Tech. Civil Engineering Program

Third Year (Working Professionals)

DEPARTMENT OF CIVIL ENGINEERING

Sardar Patel College of Engineering, Mumbai

Scheme for T.Y. B.Tech(WP) In Civil Engineering with Minor[****], (Semester-V) R23 Academic Year 2025-26														
Sr. No.	**Course Name**	**Code**	**Course Plan per Week (Hrs.)**			**SL/ Sem**	**Credits**	**In Semester Evaluation**			**End Semester Evaluation**		**End semester weightage (%)**	**Total Points**
			L	**P**	**T**			**Mid Sem Exam (Points)**	**Mid Sem Time (Hrs)**	**IE**	**Points**	**Time (Hrs.)**		
Theory courses														
1	Structural Analysis	PC-BTC501	3	0	1	64	4	30	1.5	20	100	3	50	100
2	Hydrology & Water Resources Engineering	PC-BTC502	3	0	1	64	4	30	1.5	20	100	3	50	100
3	Highway Engineering	PC-BTC504	2	0	0	32	2	30	1.5	20	100	3	50	100
Online Courses														
4	Soil Mechanics	PC-BTC503	3	0	0	48	3	30	1.5	20	100	3	50	100
5	Wastewater Engineering and Air Pollution Control	PC-BTC505	2	0	0	32	2	30	1.5	20	100	3	50	100
Minor (online)														
6	Minor 2	MI-BTXX2	4	0	0	64	4	30	1.5	20	100	3	50	100
Laboratory courses														
7	Highway Engineering Lab.	PC-BTC551	0	2	0	2	1	-	-	25	25	-	100	50
8	Wastewater Engineering and Air Pollution Control Lab.	PC-BTC552	0	2	0	2	1	-	-	25	25	-	100	50
9	Soil Mechanics Lab.	PC-BTC553	0	2	0	2	1	-	-	25	25	-	100	50
		TOTAL	**17**	**6**	**2**		**22**							

L: Lecture T: Tutorial P: Practical SL: Self Learning IE : Internal Evaluation

1 credit corresponds to 30 Hours of student engagement in a semester. Apart from actual contact hours (L T P), the remaining hours are used for term wok and self-learning by students

Scheme for T.Y. B.Tech (WP) In Civil Engineering with Minor[****], (Semester-VI) R23 Academic Year 2025-26															
Sr. No.	**Course Name**	**Course Code**	**Course Plan per Week (Hrs.)**			**SL/ sem**	**Credits**	**In semester Evaluation**			**End Semester Evaluation**		**End semester weightage (%)**	**Total Points**
			L	**P**	**T**			**Mid Sem Exam (Points)**	**Mid Sem Time (Hrs)**	**IE (Points)**	**Points**	**Time (Hrs.)**		
Theory courses														
1	Design of Steel Structures	PC-BTC602	3	0	0	48	3	30	1.5	20	100	3	50	100
2	Foundation Engineering	PC-BTC603	2	0	0	32	2	30	1.5	20	100	3	50	100
3	Design of RCC Elements	PC-BTC604	2	0	1	48	3	30	1.5	20	100	3	50	100
Online courses														
4	Construction Engineering & Management	PC-BTC601	3	0	0	48	3	30	1.5	20	100	3	50	100
5	Professional Elective - I	PE-BTC6xx	3	0	0	48	3	30	1.5	20	100	3	50	100
Minor (online)														
6	Minor 3	MI-BTXX3	3	0	1	64	4	30	1.5	20	100	3	50	100
Community Engagement Project/ Field Project														
7	Community Engagement/Field Project	FP-BTC601	2*+32				2	-	-	50	50	-	100	100
Laboratory courses														
8	Foundation Engineering Lab.	PC-BTC651	0	2	0	2	1	-	-	25	25	-	100	50
9	Design and Drawing of Steel Structures Lab.	PC-BTC652	0	2	0	2	1	-	-	25	25	-	100	50
		TOTAL	**16**	**8**	**2**		**22**							

L: Lecture T: Tutorial P: Practical SL: Self Learning IE : Internal Evaluation

1 credit corresponds to 30 Hours of student engagement in a semester. Apart from actual contact hours (L T P), the remaining hours are used for term wok and self-learning by students * Contact Hrs

Professional Elective – I

Sr. No.	Course Code	Course Name	Specialization
1	PE-BTC621	Analysis of Indeterminate Structures	Structural Engineering
2	PE-BTC622	Structural Dynamics	
3	PE-BTC623	Repair and Rehabilitation of Structures	
4	PE-BTC624	Geographic Information System Science and Application	
5	PE-BTC631	Hydraulic Structures & Irrigation Engineering	Water Resources Engineering
6	PE-BTC632	Introduction to Offshore Engineering	
7	PE-BTC633	Open Channel Flow	
8	PE-BTC634	Ground Water Development and Management	
9	PE-BTC641	Solid and Hazardous Waste Management	Environmental Engineering
10	PE-BTC642	Air and Noise Pollution Control	
11	PE-BTC643	Rural Water Supply and Sanitation	
12	PE-BTC651	Special Construction Materials & Methods	Construction Management
13	PE-BTC652	Appraisal and Implementation of Infrastructure Projects	
14	PE-BTC653	TQM and MIS in Construction	
15	PE-BTC654	Engineering Risk and Uncertainty	
16	PE-BTC661	Pavement Subgrade and Materials	Transportation Engineering
17	PE-BTC662	Low Cost Roads	
18	PE-BTC663	Traffic Engineering and Control	
19	PE-BTC671	Ground Improvement Techniques	Geotechnical Engineering

Evaluation for R23 :

1. **The Evaluation of any course shall be such that all Course Outcomes are appropriately mapped.**

2. Mid term: The courses under the category "Theory courses", the evaluation is based on Mid Term of 30 points for 1.5 hours duration. Tentatively the first four modules of the course content will be covered in Mid Term. Any change in the same will be informed by the course instructor. The courses under the category "Skill Enhancement", "Value Education", the evaluation is based on activity (Presentation, Test, Mini project, Field project, Practical Examination) of 30 points each.

3. IE: Internal Evaluation will be carried out by the course instructor for 20 points. It is the continuous evaluation throughout the semester. The evaluation will be based on minimum three of the following activities decided by course instructor. The maximum points that can be assigned to one activity will be 07. The course instructor needs to inform the students and head of the department about the activities those will be considered for IE and the points assigned to them in first week of semester. The course instructor will submit the internal evaluation points (out of 20 with activity wise break up) to examination section before the beginning of End Semester examination. List of Activities: 1. Class Involvement 2. Assignments 3. Problem Solving 4. Mini project 5. Quizzes 6. Presentation 7. Oral.

4. End semester evaluation: The course under the category "Theory courses", the evaluation is based on End semester examination of 100 points. The end semester examination will cover all the modules of the course content. The courses under the category "Skill Enhancement", "Value Education", the evaluation is based on activity (Presentation, Test, Mini project, Field project, Practical Examination) of 50/100 points.

5. The evaluation of the laboratory courses include internal evaluation IE of 25 points and End semester evaluation of 25 points. The internal evaluation is based on [10 points: Laboratory Attendance, 15 points: Laboratory work] and End semester evaluation is based on [25 points: Quizes/ Presentation/ Practical Examination/ Mini project/Oral may be any two activities]

6. The co-curricular course credits in semester VIII can be earned through participation in various activities during his/ her graduation. The co-curricular course credits are not considered for CPI calculation.

7. The evaluation of Field project/ Project/ Internship shall be as mentioned in Academic Rules.

Note: Refer Academic and Examination rules and regulations for further details.

Exit Courses under B.Tech. in Civil Engineering Program (Regulation-23)

Courses	Credits
After 1st Year (6 credits) Any two Of three courses	
Building Drawing with CAD	3
Detailing and Drawing of Concrete Structures or Detailing and Drawing of Steel Structures	3
Surveying for Civil Engineering	3
After 2nd Year (6 Credits) Any two Of three choices	
Contracts and Administration	3
Construction Safety or Visual Basics Lab	3
Internship (1 month) (4 weeks)	3
After 3rd Year (6 Credits) Either 2 courses or an internship	
Primavera	3
ETabs	3
Internship (2 months) (8 weeks)	6