



# Maharashtra State Board of Technical Education, Mumbai

## Teaching and Examination Scheme for Post S.S.C. Diploma Courses

Course Name : Mechanical / Civil / Chemical / Computer / Electronics / Electrical / Textile Engineering Groups

Course Code : CE/CR/CS/CH/PS/CM/CO/IF/CW/DE/EJ/EN/EQ/ET/EX/IE/MU/EE/EP/EU/IS/IC/AE/FG/ME/PG/PT/DC/TX/TC

Duration of Course: 6 Semesters

With Effect From Academic Year: 2017 - 18

Semester : First

Duration : 16 Weeks

Semester: First			Duration: 10 Weeks																			Grand Total
S. N.	Course Title		Abbre viation	Sub. Code	Teaching Scheme			Credit (L+T+P)	Examination Scheme													
					L	T	P		Theory						Practical							
									Paper Hrs.	ESE		PA		Total		ESE		PA		Total		
										Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
1	English		ENG	22101	3	--	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
2	Basic Science	Physics	BSC	22102	2	--	2	4	2	70*#	28	15*	00	100	40	25@	10	25	10	50	20	200
		Chemistry			2	--	2	4				25@	10			25	10	50	20			
3	Basic Mthematics		BMS	22103	4	2	--	6	3	70	28	30*	00	100	40	--	--	--	--	--	--	100
4	Fundamentals of ICT		ICT	22001	2	--	2	4	--	--	--	--	--	--	--	25@^	10	25~	10	50	20	50
5	Engineering Graphics (For CE, CR,CS, ME, AE, PG, PT, FG, EE, EP, EU,CH, PS, DC, TC, TX)		EGM	22002	2	--	4	6	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
	Engineering Graphics (For DE, EJ, ET, EN, EX, EQ, IC, IE, IS, MU, CO, CM, CW, IF)		EGE	22003	2	--	4	6	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
6	Workshop Practice. (For CE,CR,CS,ME, AE, PG, PT, FG, EE,EP, EU, CH, PS, )		WPM	22004	--	--	4	4	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
	Workshop Practice. (For CO, CM, CW, IF)		WPC	22005	--	--	4	4	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
	Workshop Practice. (For DE, EJ, ET, EN, EX, EQ, IC, IE, IS, MU)		WPE	22006	--	--	4	4	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
	Workshop Practice. (For TX, TC, DC)		WPT	22007	--	--	4	4	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
Total					15	2	16	33	--	210	--	90	--	300	--	200	--	200	--	400	--	700

Student Contact Hours Per Week: 33 Hrs. Medium of Instruction: English

Theory and practical periods of 60 minutes each. Total Marks : 700

Abbreviations: ESE- End Semester Exam, PA- Progressive Assessment, L - Lectures, T - Tutorial, P - Practical

@ Internal Assessment, # External Assessment, \*# On Line Examination, ^ Computer Based Assessment

\* Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment (5 marks each for Physics and Chemistry) to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs.

- For the courses having ONLY Practical Examination, the PA has two parts, marks for : (i) Practical Part - 60% of total marks (ii) Micro-Project Part - 40% of total marks

- Candidate remaining absent in practical examination of any one part of Basic Science course i.e. Physics, Chemistry will be declare as Absent in Mark List and has to appear for examination. The marks of the part for which candidate was present will not be processed or carried forward.
- If Candidate not securing minimum marks for passing in the "PA" part of practical of any course of any semester then the candidate shall be declared as "Detained" for that semester.

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**Maharashtra State Board of Technical Education, Mumbai**  
**Teaching and Examination Scheme for Post S.S.C. Diploma Courses**

**Program Name : Civil Engineering Groups**

**Program Code : CE/CR/ CS**

**With Effect From Academic Year: 2017 - 18**

**Duration of Program : 6 Semesters**

**Duration : 16 Weeks**

**Semester : Second**

**Scheme - I**

S. N.	Course Title		Course Abbreviation	Course Code	Teaching Scheme			Credit (L+T+P)	Examination Scheme												Grand Total	
					L	T	P		Theory						Practical							
									Exam Duration in Hrs.	ESE		PA		Total		ESE		PA		Total		
										Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks		Min Marks
1	Applied Mathematics		AMS	22201	3	1	-	4	3	70	28	30*	00	100	40	--	--	--	--	--	--	100
2	Applied Science	Physics	ASM	22202	2	-	4	8	90 Min	70*#	28	15*	00	100	40	25@	10	25	10	50	20	200
		Chemistry			2	-	--									25@	10	25	10	50	20	
3	Applied Mechanics		AME	22203	3	1	2	6	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
4	Construction Materials		CMA	22204	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
5	Basic Surveying		BSU	22205	3	-	4	7	3	70	28	30*	00	100	40	50#	20	50	20	100	40	200
6	Civil Engineering Workshop and Practice		CEW	22008	-	-	4	4	--	--	--	--	--	--	--	50#	20	50~	20	100	40	100
7	Business Communication Using Computers		BCC	22009	-	-	2	2	--	--	--	--	--	--	--	35@^	14	15~	06	50	20	50
Total					16	2	18	36	--	350	--	150	--	500	--	235	--	215	--	450	--	950

Student Contact Hours Per Week: 36 Hrs.

Medium of Instruction: English

Theory and practical periods of 60 minutes each.

Total Marks : 950

Abbreviations: ESE- End Semester Exam, PA- Progressive Assessment, L - Lectures, T - Tutorial, P - Practical

@ Internal Assessment, # External Assessment, \*# On Line Examination, ^ Computer Based Assessment

\* Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment (5 marks each for Physics and Chemistry) to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs.

~ For the courses having ONLY Practical Examination, the PA marks Practical Part - with 60% weightage and Micro-Project Part with 40% weightage

- It is mandatory for the candidate to appear for practical (ESE) of both the part of Applied Science (Physics & Chemistry). Candidate remaining absent in exam of any one part, will be considered as absent for the head ESE (PR) of Applied Science.
- If Candidate not securing minimum marks for passing in the "PA" part of practical of any course of any semester then the candidate shall be declared as "Detained" for that semester.





**Maharashtra State Board of Technical Education, Mumbai**  
**Teaching and Examination Scheme for Post S.S.C. Diploma Courses**

**Program Name : Civil Engineering Groups**

**Program Code : CE/CR/ CS**

**Duration of Program : 6 Semesters**

**Semester : Third**

**With Effect From Academic Year: 2017 - 18**

**Duration : 16 Weeks**

**Scheme - I**

Scheme - I																						
S. N.	Course Title	Course Abbreviation	Course Code	Teaching Scheme			Credit (L+T+P)	Examination Scheme														Grand Total
				L	T	P		Theory						Practical								
								Exam Duration in Hrs.	ESE		PA		Total		ESE		PA		Total			
									Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks		
1	Advanced Surveying	ASU	22301	3	-	4	7	3	70	28	30*	00	100	40	50#	20	50	20	100	40	200	
2	Highway Engineering	HEN	22302	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150	
3	Mechanics of Structures	MOS	22303	3	2	2	7	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150	
4	Building Construction	BCO	22304	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150	
5	Concrete Technology	CTE	22305	3	-	2	5	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150	
6	Computer Aided Drawing	CAD	22022	-	-	4	4	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100	
Total				15	2	16	33	--	350	--	150	--	500	--	200	--	200	--	400	--	900	
Student Contact Hours Per Week: 33 Hrs																						

Student Contact Hours Per Week: 33 Hrs.

Medium of Instruction: English

Theory and practical periods of 60 minutes each.

Total Marks : 900

Abbreviations: ESE- End Semester Exam, PA- Progressive Assessment, L - Lectures, T - Tutorial, P - Practical

@ Internal Assessment, # External Assessment, \*# On Line Examination, ^ Computer Based Assessment

\* Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs.

~ For the courses having ONLY Practical Examination, the PA marks Practical Part - with 60% weightage and Micro-Project Part with 40% weightage

➤ If Candidate not securing minimum marks for passing in the "PA" part of practical of any course of any semester then the candidate shall be declared as "Detained" for that semester.







**Maharashtra State Board of Technical Education, Mumbai**  
**Teaching and Examination Scheme for Post S.S.C. Diploma Courses**

**Program Name : Civil Engineering Groups**

**Program Code : CE/CR/ CS**

**With Effect From Academic Year: 2017 - 18**

**Duration of Program : 6 Semesters**

**Duration : 16 Weeks**

**Semester : Fourth**

**Scheme - I**

S. N.	Course Title	Course Abbreviation	Course Code	Teaching Scheme			Credit (L+T+P)	Examination Scheme												Grand Total	
				L	T	P		Theory						Practical							
								Exam Duration in Hrs.	ESE		PA		Total		ESE		PA		Total		
									Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks		Min Marks
1	Hydraulics	HRV	22401	3	2	2	7	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
2	Theory of Structures	TOS	22402	4	2	-	6	4	70	28	30*	00	100	40	--	--	--	--	--	--	100
3	Railway and Bridge Engineering	RBE	22403	4	-	-	4	3	70	28	30*	00	100	40	--	--	--	--	--	--	100
4	Geo-Technical Engineering	GTE	22404	3	-	2	5	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
5	Building Planning and Drawing	BPD	22405	3	-	4	7	4	70	28	30*	00	100	40	50#	20	50	20	100	40	200
6	Environmental Studies	EST	22447	3	-	-	3	90 Min	70*#	28	30*	00	100	40	--	--	--	--	--	--	100
Total				20	4	08	32	--	420	--	180	--	600	--	100	--	100	--	200	--	800

Student Contact Hours Per Week: **32 Hrs.**

Medium of Instruction: **English**

Theory and practical periods of **60 minutes each.**

Total Marks : **800**

Abbreviations: ESE- End Semester Exam, PA- Progressive Assessment, L - Lectures, T - Tutorial, P - Practical

@ Internal Assessment, # External Assessment, \*# On Line Examination, @^ Computer Based Assessment

\* Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs.

~ For the courses having ONLY Practical Examination, the PA marks Practical Part - with 60% weightage and Micro-Project Part with 40% weightage

➤ If Candidate not securing minimum marks for passing in the "PA" part of practical of any course of any semester then the candidate shall be declared as "Detained" for that semester.

➤ In-Plant Training during Summer vacation for minimum Six Weeks at the end of Fourth Semester (Second Year).



**Maharashtra State Board of Technical Education, Mumbai**

**Teaching and Examination Scheme for Post S.S.C. Diploma Courses**

**Program Name : Civil Engineering Groups**

**Program Code : CE/CR/ CS**

**With Effect From Academic Year: 2017 - 18**

**Duration of Program : 6 Semesters**

**Duration : 16 Weeks**

**Semester : Fifth**

**Scheme - I**

S. N.	Course Title	Course Abbreviation	Course Code	Teaching Scheme			Credit (L+T+P )	Examination Scheme													Grand Total
				L	T	P		Theory						Practical							
								Exam Duration in Hrs.	ESE		PA		Total		ESE		PA		Total		
									Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
1	Water Resource Engineering	WRE	22501	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
2	Design of Steel and RCC Structures	DSR	22502	4	1	2	7	4	70	28	30*	00	100	40	25#	10	25	10	50	20	150
3	Estimating and Costing	EAC	22503	3	-	4	7	3	70	28	30*	00	100	40	50#	20	50	20	100	40	200
4	Public Health Engineering	PHE	22504	3	-	2	5	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
Elective (Any One)																					
5	Rural Development	RDE	22505	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
	Energy Conservation and Green Building	ECG	22506	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
	Traffic Engineering	TEN	22507	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
	Precast and Pre-Stressed Concrete	PPC	22508	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
6	Industrial Training	ITR	22057	-	-	6	6	--	--	--	--	--	--	--	75#	30	75	30	150	60	150
7	Capstone Project Planning	CPP	22058	-	-	2	2	--	--	--	--	--	--	--	25@	10	25	10	50	20	50
Total				16	1	20	37	--	350	--	150	--	500	--	250	--	250	--	500	--	1000

Student Contact Hours Per Week: **37 Hrs.**

Medium of Instruction: **English**

**Theory and practical periods of 60 minutes each.**

**Total Marks : 1000**

Abbreviations: ESE- End Semester Exam, PA- Progressive Assessment, L - Lectures, T - Tutorial, P - Practical

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\* Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs.

~ For the courses having ONLY Practical Examination, the PA marks Practical Part - with 60% weightage and Micro-Project Part with 40% weightage

- **If Candidate not securing minimum marks for passing in the "PA" part of practical of any course of any semester then the candidate shall be declared as "Detained" for that semester.**
- **Evaluation of Industrial Training and its reports is to done after completion of Industrial Training. Credits of Industrial Training will not affect the framing of time table.**

Maharashtra State Board of Technical Education, Mumbai																					
Teaching and Examination Scheme for Post S.S.C. Diploma Courses																					
Program Name : Diploma in Civil Engineering / Diploma in Civil and Rural Engineering / Diploma in Construction Technology																					
Program Code : CE/CR/ CS												With Effect From Academic Year: 2017 - 18									
Duration of Program : 6 Semesters												Duration : 16 Weeks									
Semester : Sixth												Scheme - I									
S. N.	Course Title	Course Abbreviation	Course Code	Teaching Scheme			Credit (L+T+P)	Examination Scheme												Grand Total	
				L	T	P		Theory						Practical							
								Exam Duration in Hrs.	ESE		PA		Total		ESE		PA		Total		
									Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks		Min Marks
1	Management	MAN	22509	3	-	-	3	90 Min	70*#	28	30*	00	100	40	--	--	--	--	--	--	100
2	Contracts and Accounts	CAA	22601	3	-	2	5	3	70	28	30*	00	100	40	25@	10	25	10	50	20	150
3	Maintenance and Repairs of Structures	MRS	22602	4	-	2	6	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
4	Emerging Trends in Civil Engineering	ETC	22603	3	-	-	3	90 Min	70*#	28	30*	00	100	40	--	--	--	--	--	--	100
Elective – II (Select Any One)																					
5	Building Services	BSE	22604	3	-	2	5	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
	Solid Waste Management	SWM	22605	3	-	2	5	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
	Earthquake Resistant Buildings	ERB	22606	3	-	2	5	3	70	28	30*	00	100	40	25#	10	25	10	50	20	150
	Advanced Design of Structures	ADE	22607	3	-	2	5	4	70	28	30*	00	100	40	25#	10	25	10	50	20	150
6	Capstone Project - Execution & Report Writing	CPE	22060	-	-	4	4	--	--	--	--	--	--	--	50#	20	50~	20	100	40	100
7	Construction Management	CMA	22061	1	-	2	3	--	--	--	--	--	--	--	25@	10	25~	10	50	20	50
8	Entrepreneurship Development	EDP	22032	2	-	2	4	--	--	--	--	--	--	--	50@	20	50~	20	100	40	100
Total				19	-	14	33	--	350	--	150	--	500	--	200	--	200	--	400	--	900

MSBTE - Final Conv Dt. 24.09.2019

Student Contact Hours Per Week: **33 Hrs.** Medium of Instruction: **English**  
**Theory and practical periods of 60 minutes each.** Total Marks : **900**  
 Abbreviations: ESE- End Semester Exam, PA- Progressive Assessment, L - Lectures, T - Tutorial, P - Practical  
 @ Internal Assessment, # External Assessment, \*# On Line Examination, @^ Computer Based Assessment  
 \* Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs.  
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 ➤ If Candidate not securing minimum marks for passing in the "PA" part of practical of any course of any semester then the candidate shall be declared as "Detained" for that semester.