M.Tech.- Structural Engineering

I SEMESTER

				ng Hours /Week	Examination				
S1. No.	Course Code	Course Title	Theory	Practical/ Field Work/ Assignment	Durati on of Exam	CIE	SEE	Total Marks	Credit
1	19CSE11	Advanced Design of RC Structures	4	-	3	50	50	100	4
2	19CSE12	Computational Structural Mechanics	4	1	3	50	50	100	4
3	19CSE13	Design of Masonry Structures	4	1	3	50	50	100	4
4	19CSE14	Structural Dynamics	4	-	3	50	50	100	4
5	19CSE15X	Elective-I	4	-	3	50	50	100	4
6	19CSEL16	Structural Analysis and Design Lab-I		3	3	50	50	100	2
7	19CSE17	Mini-Project-I	-	3	-	50	50	100	2
TOTAL			20	6		400	300	700	24

Elective -I	
19CSE151	Advanced Design of Pre-Stressed Concrete Structures
19CSE152	Special Concrete
19CSE153	Design of Precast & Composite Structures
19CSE154	Reliability Analysis of Structures
19CSE155	Disaster Mitigation and Management

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II SEMESTER

S1.	Course Code	Course Title	Teaching Hours /Week						
No.			Theory	Practical/ Field Work/ Assignment	Duration of Exam	CIE	see	Total Mark s	Credi t
1	19CSE21	Advanced Design of Steel Structures	4	-	3	50	50	100	4
2	19CSE22	Theory of Plates and Shells	4	-	3	50	50	100	4
3	19CSE23	Finite Elements Method of Analysis	4	-	3	50	50	100	4
4	19CSE24	Earthquake Resistance Structures	4	-	3	50	50	100	4
5	19CSE25X	Elective-II	4	-	3	50	50	100	4
6	19CSEL26	Structural Analysis and Design Lab-II		3	3	50	50	100	2
7	19CSE27	Mini-Project-II	-	3	1	50	50	100	2
	TOTAL		20	6	18	400	300	70	2
								0	4

Elective -II						
19CSE251	Design of Tall structures					
19CSE252	Repair and Rehabilitation of Structures					
19CSE253	Stability of Structures					
19CSE254	Design Concepts of Substructures					
19CSE255	Corrosion of Steel in Concrete					

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HISEMESTER

	Course Title	Teaching& Learning (Hrs/week)		Practical/	Duration	Marks for		TD 4 1	
Course Code		Lectures	Discourse/ Self-study/ Assignment	Project/ Field work (Hrs/week)	of Exam in Hours	CIE	SEE	Total Marks	Credits
19CSE31	Design of Concrete Bridges	3	2		3	50	50	100	4
19CSE32X	Open elective	3	2		3	50	50	100	3
19CSE33	Main Project Phase –I			4	3	50	50	100	08
	Total	6	4	4	9	150	150	300	15

Open	Open Elective 1					
1	Optimization Techniques					
2	Industrial Safety					
3	Operations Research					
4	Cost Management of Engineering Projects					
5	Composite Materials					
6	Waste to Energy					

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IV SEMESTER:

S1. No.	Course Code		Teachir	g Hours /Week					
		Title	Theory	Practical/Field Work/ Assignment	Duration of Exam	CIE	SEE	Total Marks	Credit
1	19CSE41	Internship	-	40	03	50	50	100	06
2	19CSE42	Main Project Phase -II	-	20	03	100	200	300	12
TOTAL		-	64	06	100	100	400	18	

Note: Internship comprises following sub components:

- 1. Presentation on Internship (after 8 weeks from the date of commencement) (CIE) for 25 marks.
- 2. Evaluation of Internship Report (CIE) for 25 marks.
- 3. Viva-voce on Internship (SEE) for 50 marks.
- 1. Project phase-I: 6 weeks duration shall be carried out between II and III semester vacation. Candidates in consultation with the guide shall carryout literature survey/ visit industries to finalize the topic of the project.
- 2. Project phase-II: 16 weeks duration during IVth semester. CIE 100 marks evaluation done by the committee constituted comprising of chairman of the department, guide and senior faculty of the department.
- 3. Project evaluation: valuation shall be taken up at the end of the IVth semester(SEE)
 - a) Internal examiner shall carry out the evaluation for 100 marks
 - b) External examiner shall carry out evaluation for 100 marks
 - c) The average of marks allotted by the internal and external examiner shall be the final marks of the project evaluation.

Viva-voce examination of the project work shall be conducted jointly by internal and external examiner for 100 marks.