GUJARAT TECHNOLOGICAL UNIVERSITY
BRANCH NAME: B.Arch.
SUBJECT CODE: 2X65002 Building Construction- VI
3rd Year, Semester: VI

Type of course: B.Arch.

Prerequisite: All previous BCT

Rationale:
The course content is divided in to four parts, Introduction to Highrise structures, Various space making elements of such structures, the construction part of such structures and integration of services in the structures.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA (M)	ESE (V)	PA (I)	
2	2	2	6	50	50	0	0	100

Content:

Sr. No.	Topics	Teaching Hrs.	Weightage %
1	**High Rise Structures:** Forces on High Rise Structures, Types of High-Rise Structures, Stabilizing High Rise structures	**9**	**30**
2	**Highrise Structures Space Making Elements:** Floors, Walls, Openings, Roof, Stairs	**6**	**20**
3	**Highrise Structures Construction:** Construction Technology, Structural System, Material exploration in Highrise Structures	**6**	**20**
4	**Highrise Structures Services:** PHE, Electrical, Vertical circulation, HVAC, Fire	**9**	**30**

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
05	**15**	**30**	**25**	**05**	**20**

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. "Building Structures ILLUSTRATED", by Francis D.K.Ching, John Wiley and Sons.
2. "Foundation Systems for High-Rise Structures" by Rolf Katzenbach and Steffen Leppla
3. "Designing Tall Buildings: Structure as Architecture" by Mark Sarkisian

Course Outcome:

Sr.No	CO Statement	Marks % Weightage
Upon completion of this course, the students should be able to:		
1	**Understand** The designing & integrating the systems in such structures.	25
2	**Evaluate** The appropriate ness aspect of selecting constructional technology & structural system considering various structural factors.	25
3	**Explain** The designing of the high-rise structures.	25
4	**Propose:** Design strategies for such developments.	25

Term Work:

Preparation of report, submissions, presentations, notes based on the presentations, lectures, reference materials.