



	WINTER-2023		
	Exam Seat No.:		
	Academic Year: 2023-2024	Semester: III	
	Name of Programme : M.Tech	Pattern: 2022	
	Name of Course : High Rise Structures	Course Code: CIV226101A	
	Max. Marks:60	Duration: 2.50 Hrs	

	<p>Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.</p> <ol style="list-style-type: none">1. This question paper contains 02 pages.2. Answer to each new question is to be started on a new page.3. Assume suitable data wherever required, but justify it.4. Draw the neat labelled diagrams, wherever necessary.5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.	
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Question No. 1 Attempt following Question

- 1a) Explain briefly Design Principles for High Rise Structures using minimum 3 points from below (6) CO2
- Factors for slimming down of the weight of structure frame
 - Effects of openings
 - Large panel Constructions
 - Foundation Super-Structure Interaction.

Question No. 2 Attempt following Question

- 2a) Explain in detail AeroElastic Tall buildings. (6) CO2

Question No. 3 Attempt following Question

- 3a) Explain in detail Modelling for Approximate Analysis and Accurate analysis (8) CO2

OR

- 3b) Explain Differential Movement and Temperature effects? (8) CO2

- 3c) Compare in detail Lateral and Gravity Resisting Structural systems for concrete buildings. ? (8) CO2

OR

- 3d) Explain any creep, shrinkage effects and Fire resistance? (8) CO2

Question No. 4 Attempt following Question

4a) Explain in detail P-delta analysis ? (8) CO3

OR

4b) Explain Lateral system for steel buildings ? (8) CO3

4c) What is Buckling analysis explain in detail ? (8) CO3

OR

4d) Explain Lateral system for composite Construction ? (8) CO3

Question No. 5 Attempt following Question

5a) Explain in detail shallow foundation? Write design steps (8) CO4

OR

5b) Explain elaborately design philosophy for Raft Foundation and its types (8) CO4

5c) Explain in detail Deep Foundation ? Write design steps (8) CO4

OR

5d) Explain elaborately design philosophy for Pile Foundation and its types (8) CO4