



SF-7601

B. Arch. - IV (Sem. - VIII) Examination

May/June - 2011

Hi-Tech Structure

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशिक निशानीवाणी विगतो उत्तरवडी पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. ARCH. - 4 (SEM. - 8)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="HI-TECH STRUCTURE"/>	<input type="text"/>
Subject Code No. : <input type="text" value="7"/> <input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="1"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

- (2) Assume suitable data and specifically mention it.
(3) Figures to the **right** indicate full marks.
(4) Draw detailed drawings to support your answer.

- 1 (a) For non earthquake zone, which lateral load resisting system you will prefer for Tallest structure and why. 5
(b) Explain any one Existing tall structure in terms of following details. Lateral load resisting system, gravity load transfer, material, connections, foundation details, any other hi-tech systems or specific method for load transfer along with structural plan and sectional elevations. 15

Attempt any two questions out of Q-2, Q-3 and Q-4

- 2 Explain : 15
(i) Tube in tube system
(ii) Core and outrigger system
- 3 Classify Shell structure. Explain load transfer in a typical hemispherical dome. 15

- 4 What is the difference in load transfer amongst-shell, membrane, plates and folded plates. 15
- 5 Explain any one existing Tensile structure with all the detail like form, load transfer, material, connection, stability against wind, foundation etc. 20

Attempt any two Questions out of Q-6, Q-7 and Q-8

- 6 What is base isolation system ? Explain types of base isolation systems with its application. 15
- 7 Give your comments about the structures to be build in earthquake prone zone and suggest remedial measures for the same. 15
- (i) irregular shaped plan of the building
 - (ii) building with set backs
 - (iii) building with uneven distribution of mass
 - (iv) too long building
 - (v) building with skip floor
- 8 Write short notes : 15
- (i) funicular structure
 - (ii) Stability of tensile structure against wind
 - (iii) Cable net structure
