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**RM-7601**

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

**May / June - 2010**

**Hi-Tech Structure**

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
Fillup strictly the details of signs on your answer book.

Name of the Examination :

Name of the Subject :

Subject Code No. :     Section No. (1, 2,.....) :

Seat No. :

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 you answer.

- Q. 1(a) Why lateral load becomes major concern for Tall structure? 05
- (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 plans & sectional elevations. 15

**Attempt any two Questions out of Q-2,Q-3 & Q-4**

- Q-2 Explain any two lateral load resisting systems for tall structure. 15
- Q-3 Classify Shell structure. Explain load transfer in a typical hemispherical dome. 15
- Q-4 Explain behavior of plates & folded plates under loading & with respect to boundary condition. 15

- Q-5(a) What is funicular structure? 05
- (b) Explain any one Tensile structure in detail in terms of evolution of form, load transfer, materials, connection, foundation system & stability against wind .Draw detailed sketches. 15

**Attempt any TWO Questions out of Q-6, Q-7 & Q-8**

- Q-6 What is damper ? Explain basic types of damper with its application 15
- Q-7 How earthquake determines basic form of structure? Explain basic design criteria to design a building against effect of earthquake. 15
- Q-8 Explain Air supported & Air inflated structures by giving proper examples. 15

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**[ 100 ]**