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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 :

☛ **B. Arch. 4 (Sem. 8)**

Name of the Subject :

☛ **Hi-Tech Structure**

☛ Subject Code No. : 7 6 0 1 ☛ Section No. (1, 2,.....) : Nil

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**