



J-10765

Seat No. _____

B. Arch. (Sem. IX) Examination

November - 2019

Building Construction - VIII

Time : 4 Hours]

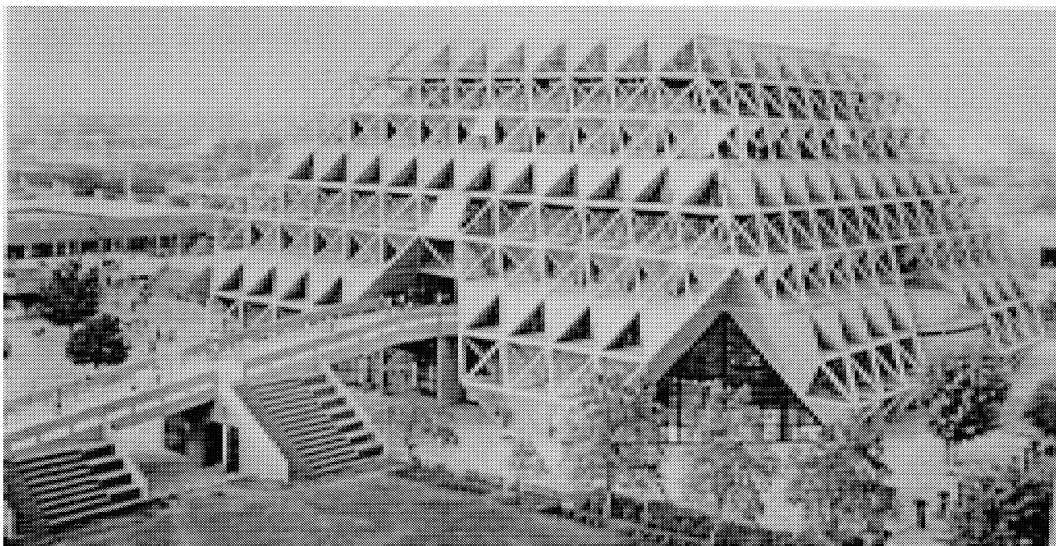
[Total Marks : 80

- Instructions :**
- (1) Respond with appropriate drawings and bulleted points only
 - (2) Contextual understanding will be considered critically in assessment
 - (3) Support your stand/ statement with relevant examples and sketches.

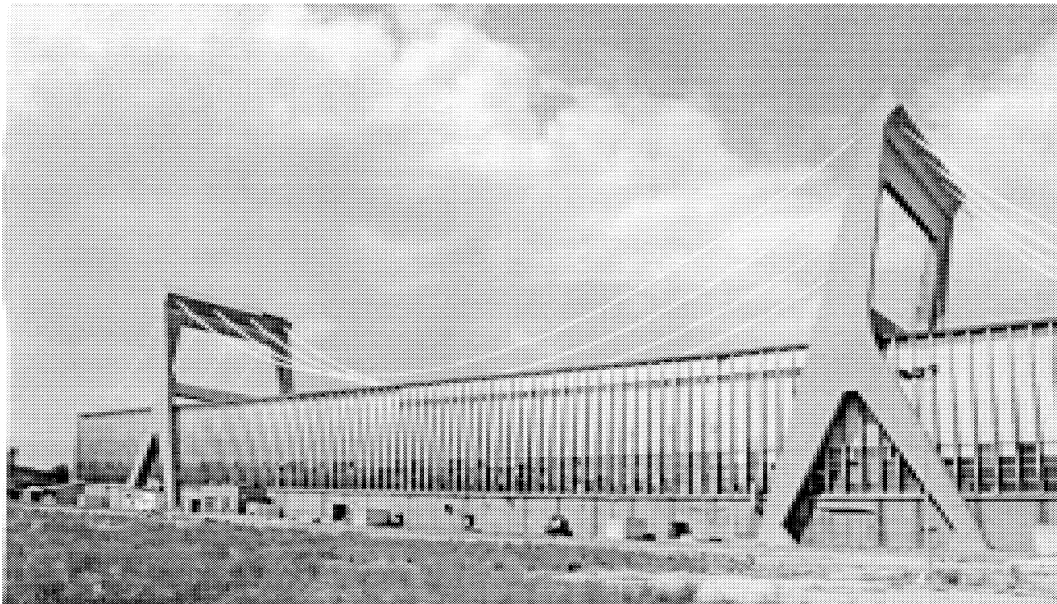
1 Explain any two of the building with following considerations : **40**

- (a) Identify and diagram primary and secondary structural system.
- (b) Imagine and identify structural elements and their role
- (c) Write a note on structural system, form and expression
- (d) Choice of construction materials and its relevance

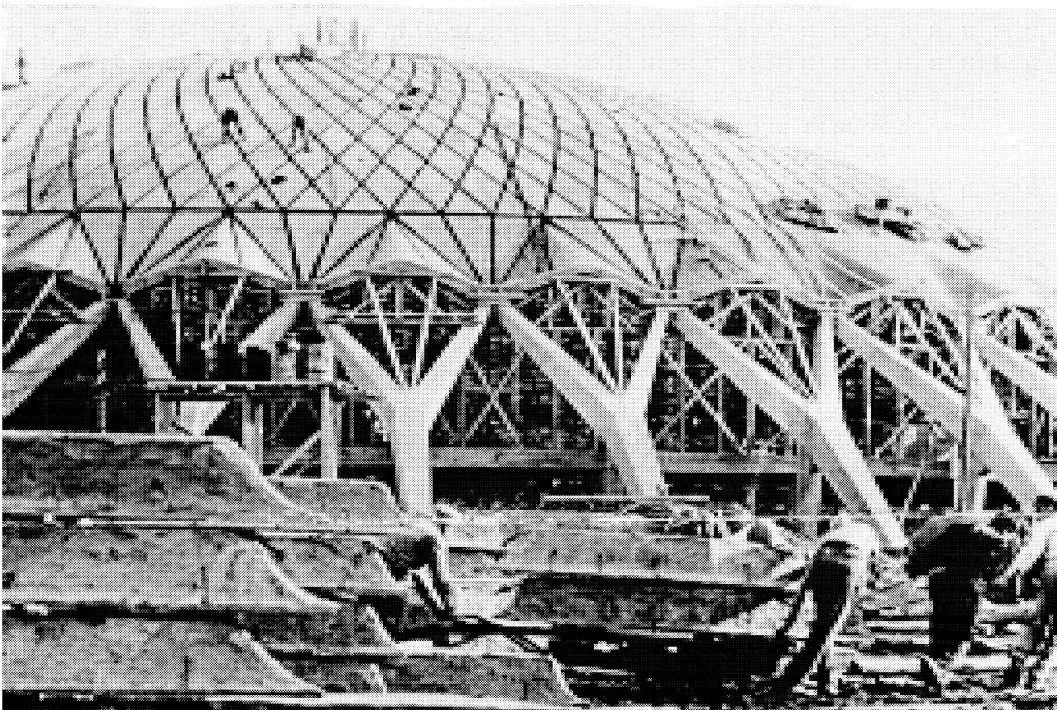
(1) Pragati Maidan by Raj Rewal.



(2) Burgo factory building by Pier Luigi Nervi



(3) Palazzetto dello sport in Rome by Pier Luigi Nervi.



2 Design Problem:

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Design a roof cover for a hotel building's atrium at Rajkot. The square atrium placed at the center of the overall building, having size of 35mt. X 35mt. with the height of 16mt. Structural grid of columns at edge of atrium at 5mt c/c. Considering that the RCC structure is taking all loads applied by the roof cover at support. The roof cover will be of permanent in nature at the height of 17mt. on top of the four story building.

Design solution should consider natural light and ventilation for the atrium space.

Submission Requirements -

- A note on ideas and design concerns
 - A note on choice of structural system/s and material to full-fill above mentioned concerns
 - Structural Plan/s and Sections
 - Detailed of connection between roof system and RCC structure at support
 - Details of roof skin, its modulation and connection to structural elements
 - Details of connection between elements of roof system
 - Details of all opening and its connection with roof structure.
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