

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

R

End - Autumn Semester Examination

First Year B.Arch.

Session : 2010 – 2011

Time : Three Hours

Subject no. AR 12003

Full Marks : 50

Subject Name : Introduction to Architecture

Instructions

- Answer **any FIVE** from all the questions given below.
- Parts of a question should be answered together, not spread throughout the answer script.
- Answers should be to the point and supported by appropriate illustrative sketches wherever necessary.
- Answers with analytical views, practical examples and personal observations will be appreciated.

1. (a) Why do architects need to follow Organization of Spaces?
(b) Briefly describe about the Radial and the Clustered Organization of Spaces. (4+6)

2. (a) Highlight the principal determining factors for selecting an appropriate Structural System of a building.
(b) Draw the sketches and show the contextual applicability for the following steel trusses :
King Post Truss / Scissors Truss / Bow String Truss / Fink Truss / Gambrel Truss / Howe Truss (4+6)

3. (a) How do Macro-Climatic factors influence the Micro-climatic design in Architecture?
(b) Explain the main climatic design features for Buildings both in Hot-Dry and Hot- Humid Macroclimates. (4+6)

4. (a) How do you design Circulation Approaches towards Buildings?
(b) How does Form of Circulation space influence its quality of kinesthetic experience?
(4+6)

5. (a) Draw an external section of a load bearing wall (single storied residential building) from its foundation to parapet, highlighting its major components with standard dimensions.
(b) Draw various types of Long Span Architectural Roofing Systems discussing their individual benefits and limitations. (4+6)

6. (a) Draw an annotated sketch of a Casement Window, highlighting its major components.
(b) Compare amongst Panel Door, Flush Door and Ledged & Braced Battened Door.
(4+6)