

Seat No. : _____

12D-121

May-2015

B.Arch./ID/BCT Sem.-II (New)

Building Construction-II (AR-203)

(New Course)

Time : 3 Hours]

[Max. Marks : 100

- Instructions :** (1) Figures to the right indicate full marks.
(2) Assume suitable data, if necessary.
(3) Neat proportionate sketches are necessary to explain theories.

1. Draw a section of a timber truss roof for a span of 3000 mm, showing structural members with roof covering materials. Give enlarged details of : **30**
- (a) Tie beam with king post
 - (b) Tie beam with principal rafter
 - (c) Ridge and common rafter
 - (d) Laying of Mangalore tiles with battens

OR

Draft a timber single ground floor for a dance hall having size of 3500 mm × 5500 mm. Consider joist size 65 mm × 125 mm depth. Distance between the two joists is 600 mm. Show appropriate details of this floor with plan and sections. (Use 1:20 scale for drafting)

2. Explain sources of dampness in buildings and its preventive measures. Sketch appropriate damp proofing details at all building conditions. **15**
3. Draw a segmental arch of a span of 4 mts and show all of its elements with proper terminology and detailed description of each. **15**
4. What is pile foundation ? What are the types of pile foundations ? Explain with neat sketches any two types of pile foundations. **15**

5. Differentiate between the following : (any **three**) **15**
- (a) Hipped roof and Gabled roof
 - (b) Strip footing and isolated column footing
 - (c) Joist and beam
 - (d) Rough brick arch and Gauged brick arch
6. Define the following terms with neat sketches : (any **five**) **10**
- (a) Wall plate
 - (b) Strutting and bracing
 - (c) Cambering
 - (d) Spandrel and pier
 - (e) Relieving arch
 - (f) Truss
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