



UG-6101

B. Arch. - II (Sem. - III) Examination

May\June - 2012

ARC - 302 : Building Materials & Construction
Technology - III

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दर्शायेव निशानीवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
B. Arch. - II (Sem. - III)	<input type="text"/>
Name of the Subject :	<input type="text"/>
ARC-302 : Build. Materials & Constr. Techno. - III	<input type="text"/>
Subject Code No. : <input type="text" value="6"/> <input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="1"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	
Student's Signature	

- (2) Figures to the right indicate full marks.
(3) All questions have to be attempted in one answer sheet only.
(4) Support your answers with neat and clean sketches wherever necessary/

- 1 (a) Answer in one word/line : 5
- (i) What is the function of purlin ?
(ii) The vertical distance between the top of ridge and the wall plate is called _____.
(iii) The ridge formed by the intersection of two sloping surfaces, where the exterior angle is greater than 180 is called _____.
(iv) Name the two typical methods of constructing ground floors.
(v) What are the major components of triple joist timber floor ?
- (b) Draw neat and illustrated sketches of the following : 15
(any five)
- (i) Eaves, fascia board, gable end and ridge piece.
(ii) Collar and scissor roof.
(iii) One way joist slab.
(iv) Connections in precast concrete floor units.
(v) Typical section of brick jack arch floor.
(vi) Typical section/details of Gambrel roof.

- 2 (a) Answer in brief : (any **five**) **10**
- (i) What is quick setting cement ?
 - (ii) Enlist various methods of curing.
 - (iii) What is the need of concrete cover ?
 - (iv) Explain air entrant concrete.
 - (v) What is segregation ?
 - (vi) What is ready mix concrete ?
- (b) Attempt any **two** : **10**
- (i) Explain the significance of roofs as a component to express built form.
 - (ii) Enlist the criteria to select an appropriate floor covering material for a building.
 - (iii) Explain the function and connection details of purlin in double roof system.
 - (iv) Explain compaction with reference to concrete.
- 3 Attempt any **three** : **30**
- (i) Differentiate between double joist timber floors and triple joist timber floors in detail with neat and illustrated diagrams.
 - (ii) Explain composite floor system in details.
 - (iii) What is the difference between cast in situ concrete floors and precast concrete floors ? Enlist various types of concrete floors and explain any one in detail.
 - (iv) Explain the various stages of building construction and sequence of various on site operations through flow chart/diagrams.
- 4 Attempt any **three** : **30**
- (i) Explain Queen Post Roof Truss in detail. Elaborate its application through appropriate example.
 - (ii) Explain steel roof system in detail with its suitability and joinery details.
 - (iii) What do you understand by green roof ? Elaborate upon its suitability and explain typical sectional details.
 - (iv) Suggest an appropriate roof system for an outdoor food court of size 18m × 24m. Assume suitable data and support your answer with relevant drawings i.e. plans, sections, elevations, views and required details.