



KD-6101

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

December - 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"/> 6 <input type="text"/> 1 <input type="text"/> 0 <input type="text"/> 1	<input type="text"/>
☛ Section No. (1, 2,.....) : <input type="text"/> Nil	<input type="text"/>
	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..... (05)

1. The clear distance between the two supports of an arch, beam or roof truss is called.....
2. What type of roofs is considered suitable for buildings in plain regions, where rainfall is moderate and where there is no snowfall and why?
3. What materials are commonly used for formwork of concrete floors?
4. What is the major component of single joist timber floor?
5. What are the two typical methods of constructing ground floors?

(B) Draw neat and illustrated sketches of the following :(Anyfive)..... (15)

1. Combination of king post and queen post roof truss
2. One way beam system in steel floors
3. Typical section of a toilet slab

4. Any three common forms of pitch roof
5. Brick jack arch floor
6. Typical section/details of A frame roof

Q.2.

(A) Answer in brief :(Any five)..... (10)

1. What is light weight concrete?
2. Explain compaction with reference to the process of concreting.
3. What do you understand by M20?
4. Explain pumpcrete.
5. Enlist various methods of testing of concrete.
6. What is segregation?

(B) Attempt any two :..... (10)

1. Explain the significance of floors as a component of building.
2. Enlist the criteria to select an appropriate roof covering material for a building.
3. Draw and explain different precast floor units and their connections.
4. Explain various methods of curing the concrete.

Q.3. Attempt any three..... (30)

1. Explain various types of timber floors in detail with neat and illustrated diagrams.
2. What is a composite floor system? Explain in detail with its construction method.
3. What are the advantages of cast in situ concrete floors? Explain in detail the construction method of concrete floors and enlist its various types.
4. Explain the various stages of building construction and sequence of various on site operations through flow chart/diagrams.

Q.4. Attempt any three..... (30)

1. Explain King Post Roof Truss in detail. Elaborate its application through appropriate example.
 2. Explain single roof system and its variations with reference to form, span and application.
 3. What do you understand by green roof? Elaborate upon its suitability and explain typical sectional details.
 4. Explain the difference between single roof, double roof and triple roof system through schematic diagrams and brief description.
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