

Seat No. : _____

N12-105

November-2014

B.Arch./ID/BCT, (Sem. –I)

AR-103 : Building Construction – I

(New Syllabus)

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.
 - (4) All the questions are compulsory.

1. (a) Draft plan, elevation of 230 mm thick brick wall of English bond 'L'-junction.
(Scale 1 : 10) **20**
- (b) Draft plan, elevation of 350 mm thick brick wall of Flemish bond Stop-End condition. (Scale 1 : 10)

2. Draft a wall section of a house having load-bearing brick wall with living room at ground floor and a bedroom at first floor. Show all the components of a building. (Foundation to terrace level) (Scale 1 : 20) **20**

OR

- (a) Draw and describe a cross section of an exogenous tree.
 - (b) Draw given types of stone masonry. (Plan & Elevation)
 - (1) Random rubble uncoursed.
 - (2) Square rubble built to course.
3. Attempt with proportionate drawing : (any **four**) **20**
 - (a) What do you understand by conversion of a timber ? Explain any two with neat sketches.
 - (b) Describe various market forms of steel available for building construction.
 - (c) Quick lime and slaked lime.
 - (d) Draw various shapes of brick.
 - (e) What is a Curing of concrete ?

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4. Write short note on following with proportionate drawing : (any **five**) **30**
- (a) What is the various type of mortar ? Describe any two in detail.
 - (b) Fine aggregate and course aggregate.
 - (c) Explain clamp burning.
 - (d) Discuss the geological classification of rocks in detail.
 - (e) What do you understand by seasoning of timber ? Explain Kiln seasoning in detail.
 - (f) Explain siliceous rock and calcareous rock.
 - (g) Explain mild steel and cast iron.

5. Give correct answers of the following : **10**
- (a) Gabbro stone is metamorphic of _____ stone.
 - (b) Sand stone is _____ type of stone.
 - (c) Neem tree is classify as _____ types of tree.
 - (d) _____ tree is classifying as Endogenous types of tree.
 - (e) To construct 115 mm thick brick wall _____ type of bond is used.
- _____