

Seat No. : _____

11C-135

May-2015

B.Arch./ID/BCT, Sem.-IV (New)

AR-602 : Building Construction-IV

Time : 3 Hours]

[Max. Marks : 100

Instructions : (1) **All** questions are compulsory.

(2) Figures to the right indicate full marks.

(3) Draw neat and clean sketches.

(4) Assume additional data, if necessary and state the same clearly.

1. (1) What is the function of a retaining wall ? What are the different types of retaining walls ? Explain any two types in detail. **20**
(2) Explain different types of long span RCC slab with neat proportionate sketches. Explain any three types in detail.
2. Differentiate between the following : (any **three**) **15**
 - (1) Formwork and Scaffolding
 - (2) Coffer slab and Ribbed slab
 - (3) Dry wood termite and Subterranean termite
 - (4) Precast underground water tank and cast-in-situ underground water tank.
3. Write the following : (any **three**) **15**
 - (1) What is shoring ? Describe with the neat sketch types of shoring.
 - (2) What are the consideration that one need to take while designing a retaining wall ?
 - (3) What are the merits and demerits of a RCC flat slab ?
 - (4) What is the main objective of "Thermal Insulation" ?

4. Describe the following : (any **two**) **20**
- (1) What are the advantages and disadvantages of steel formwork ?
 - (2) Discuss and draw typical RCC or Brick wall section detail of a basement.
 - (3) Explain with neat sketches the method of thermal insulation for external wall and terrace slab in a building.
5. Write short notes on with neat sketches : (any **three**) **15**
- (1) Air drains
 - (2) Termite proofing for new construction
 - (3) Damp prevention technique for parapet wall
 - (4) Jack arch flooring
6. Answer the following : (any **three**) **15**
- (1) Write the difference between one way slab and two way slab.
 - (2) How do you select the material and sizes of forms for construction works ?
 - (3) How dampness causes defects in a building ? What is the function of damp proof course ?
 - (4) Explain the forces on Retaining wall.
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