

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: B.ARCH
BRANCH: ARCHITECTURE**

**SEMESTER: III
SESSION : MO/2018**

SUBJECT : AR3303 CONSTRUCTION TECHNIQUES

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
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- Q1 (a) List the different three types of soil found and what area the information we gather before starting the design. [2]
(b) Briefly explain soil Bearing capacity. [3]
- Q2 (a) Complete the following sentences. [1x5]
a. Clay Soil is good for _____
b. Soil Bearing Capacity can be calculated as _____
c. Foundation is shallow if _____
d. Combined footing is for shallow or deep foundation? _____
e. Compaction of soil can be carried out in these two ways _____
- Q3 (a) State the specific use of (i) Timber, (ii) Aluminium (iii) Steel, as a material for formwork. [2]
(b) What are the advantages of using fiberglass reinforced plastic as form work. [3]
- Q4 (a) Sketch the formwork used for i). Square /rectangular column, ii). Octagonal Column [2]
(b) Labeled diagram for shuttering of staircase. [3]
- Q5 (a) In order to successfully carry out a formwork, which criteria's are important, list all. [2]
(b) Please elaborate on any two of the criteria's [3]
- Q6 (a) What are cavity walls? [2]
(b) What are the advantages of cavity walls? [3]

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