

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

**CLASS: BARCH
BRANCH: ARCHITECTURE**

**SEMESTER : III
SESSION : MO/18**

SUBJECT: AR3303-CONSTRUCTION TECHNIQUE AND CODES

TIME: 03:00 HRS.

FULL MARKS: 60

INSTRUCTIONS:

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
 2. Candidates may attempt any 5 questions maximum of 60 marks.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What are the different types of shallow foundations? [2]
(b) What is a steel Grillage foundation? What type of soil is it used in? [4]
(c) Sketch a view of how the steel grillage foundation for a steel stanchion looks like. Explain its basic characteristics. [6]
- Q.2(a) Name the different materials used for construction of formwork. [2]
(b) State the removal time of formwork for different parts of the building. [4]
(c) Write short note on basic light weight tube scaffolding. What are couplers? Mention the main three types of couplers? [6]
- Q.3(a) List four types of partition walls. [2]
(b) Differentiate between pre-cast concrete partition walls and cast-in-situ concrete partition wall. How is pre-cast concrete partition walls put together? [4]
(c) An interior designer intends to fabricate a opaque partition wall, which is hung from the ceiling and has a clear space of 600 mm at lower level from the floor finish. [6]
- Q.4(a) How do you define a 'High rise Structure'? [2]
(b) What is the structural system used in Burj Khalifa, please elaborate? [4]
(c) List 6 (Six) most prominent hi- rise buildings and their location in the world. [6]
- Q.5(a) What are Byelaws? [2]
(b) What is the hierarchy of bodies in a state in India, which govern and implement them? [4]
(c) State six general considerations in Byelaws with connection to Site and means of Access. [6]
- Q.6(a) What is Landuse? [2]
(b) What are the various types of landuse classifications and the colour used to represent the same? [4]
(c) What is meant by Regional Plan, why are development plans important? [6]
- Q.7(a) What is NBC, which is the body that frames it? [2]
(b) What are Group J Hazardous buildings classified in NBC's Fire and Life Safety chapter? [4]
(c) Why is open space necessary in any settlement, what are the codal provisions with respect to plantation and demarcation of green and open spaces? [6]

*****28.11.18*****E