

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

**CLASS: BARCH
BRANCH: ARCHITECTURE**

**SEMESTER : III
SESSION : MO/2022**

SUBJECT: AR202 BUILDING CONSTRUCTION AND CODES

TIME: 3:00 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 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.
-

- Q.1(a) Explain SBC and its relevance with respect to Building Foundation. [2]
Q.1(b) What are the characteristics of Cohesive soil and Non Cohesive soil Types? [3]
Q.1(c) Explain the various Factors in detail which affects the selection of Foundation type. [5]
- Q.2(a) What is shoring and its use? [2]
Q.2(b) Describe the comparison of Timber and steel formwork. [3]
Q.2(c) Discuss flying shores and Double Raking Timber shore with neat sketches showing their different components. [5]
- Q.3(a) Discuss High Performance Concrete and its benefits. [2]
Q.3(b) Discuss hollow concrete blocks and its advantages over conventional brick masonry [3]
Q.3(c) Discuss partition wall and different types of partition wall in detail with neat sketch. [5]
- Q.4(a) What is Building bye-laws and its purpose? [2]
Q.4(b) Explain City Master Planning and its benefits. [2]
Q.4(c) Describe any three of the following terminologies w.r.t. any new building design proposal. [6]
i) F.A.R. ii) Sanction Drawings iii) Parking building norm iv) NBC & its sections
- Q.5 Write short notes on any five from the following: [2X5]
(a) Underpinning (b) Aerogel (c) Slip Form Construction
(d) LITRACON (e) Thermoplastics (f) Trussed Tube in Tube Structure

:::22/11/2022:::E