



**III SEMESTER B.TECH. (CIVIL ENGINEERING)**  
**END SEMESTER EXAMINATIONS, NOV/DEC 2018**  
**SUBJECT: BUILDING SCIENCE AND TECHNOLOGY**  
**[CIE 2103]**

**REVISED CREDIT SYSTEM**  
**(24/11/2018)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

Q.No.	Questions	Marks	CO
<b>1A</b>	What are the different qualities of a good brick and explain the different tests conducted on bricks.	4	1
<b>1B</b>	Describe vulcanization and compounding of rubber? What are the applications of rubber in Civil Engineering?	2	1
<b>1C</b>	Explain the following along with their applications	4	1
<b>2A</b>	Explain the following a. Allahabad tiles and Pot tiles b. Lime mortar and surkhi mortar	4	1
<b>2B</b>	Explain the following with their properties and applications. a. Bitumen b. Paint	4	1
<b>2C</b>	Describe briefly the steps involved in the two-coat cement plastering on brick masonry wall.	2	2
<b>3A</b>	List various steps involved in the manufacturing of concrete from the selection of materials to curing? Explain in detail how the segregation is taken care during placing the concrete.	4	2
<b>3B</b>	What are the various components of hardened concrete structure? Discuss the importance of transition zone and its effect on properties of hardened concrete.	3	2
<b>3C</b>	Explain Ultrasonic pulse velocity test along with its merits and demerits.	3	2
<b>4A</b>	What are Bogue's compounds and how each of these compounds influence the characteristics of Portland cement?	2	2
<b>4B</b>	What is a scaffolding? Explain the classification of scaffoldings with a neat sketch.	4	3
<b>4C</b>	With a neat diagram explain the characteristics of Flemish bond in a brick masonry. Mention the advantages and disadvantages.	4	4
<b>5A</b>	Sketch a neat labelled diagram of eight types of joints used in stone masonry and explain them.	4	4
<b>5B</b>	What is Reinforced brick masonry? What are types of reinforcements used in Reinforced brick work? What are its advantages over normal brickwork?	2	4
<b>5C</b>	What is polymer Concrete? Under what circumstances it is used? What are the ingredients used in polymer Concrete? How is it different from normal concrete?	4	5