



III SEMESTER B.TECH. (CIVIL ENGINEERING)
END SEMESTER EXAMINATIONS, NOV/DEC 2018
SUBJECT: BUILDING SCIENCE AND TECHNOLOGY
[CIE 2103]
REVISED CREDIT SYSTEM
(/ /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
1A	Explain different classification of aggregates based on origin, size, shape and density.	4	1
1B	What are the requirement of an ideal paint? support your answer with 6 points	2	1
1C	With a neat diagram explain the following parts of an arch a. Soffit b. rise c. abutment d. springing e. crown f. intrados g. extrados h. voussoir	4	1
2A	Define seasoning of timber and explain different methods of artificial seasoning.	4	1
2B	Explain the following with their properties and applications a. Tar b. Ferro-cement	4	1
2C	Describe briefly the steps involved in the two-coat cement plastering on brick masonry wall.	2	2
3A	Explain in detail the factors affecting workability of fresh concrete.	4	2
3B	a. Explain in detail how the segregation is taken care during placing the concrete? b. Explain the factors effecting the durability of hardened concrete?	3	2
3C	List the different methods of Non-destructive testing of concrete in structural element? Explain Rebound hammer test with a neat sketch	3	2
4A	How soundness of cement is determined in the laboratory as per Indian Standard specifications?	2	2
4B	What is underpinning? Explain different types of underpinning methods with the help of neat sketch.	4	3
4C	With a neat diagram explain the characteristics of English bond. Mention the advantages and disadvantages.	4	4
5A	a. Explain the procedure for laying stone slab flooring. b. What are the advantages and disadvantages of brick masonry over stone masonry?	4	4
5B	What are the differences between load bearing wall and partition wall? Support your answer with 4 points.	2	4
5C	What is corrosion in RCC? How does carbonation induce corrosion into RCC structure?	4	5