

B.E. Construction Engineering. 2nd YEAR EXAMINATION, 2024
(1st Semester)

SUBJECT : MATERAILS OF CONSTRUCTION

Time : Three hours

Full Marks : 100

(50 Marks for each Part)

Use separate answer script for each Part

No of Questions	Part I (50 Marks)	Marks
	Answer all Questions	
Q1.	What are different dominant types of cement available in India. Why PPC Cement is more sustainable product with respect to OPC.	15
Q2.	(a) What is TMT bar, Explain TMT procedure in short	7.5
	(b) To counter seismic effect structure Fe550D is more preferable than Fe550D grade if steel, explain why.	05
	(c) How you will perform unit weight test in Reinforcement bars	2.5
Q3.	What is the governing IS code for Rolled Structural Steel Section. What are the different grades of structural steel available in India work day.	10
Q5.	ACC blocks are more acceptable product than normal clay burnt bricks from engineering point of view. Explain this points.	05
Q6.	Write a short notes on DIFFERENT GRADING ZONE of Sand	05

BE SECOND YEAR FIRST SEMESTER (CONSTRUCTION) SUPPLEMENTARY EXAMINATION - 2024

Subject : MATERIALS OF CONSTRUCTION

Time : Three hours

Full Marks : 100

(50 Marks for each Part)

Use separate answer script for each Part

PART II (50 Marks)Answer parts of any question **SERIALLY**.

Answer **Question No. 1** & any **TWO** questions. Please start answering a question or part thereof from a **NEW** page. Answers should be brief. Please mark the answers with answer numerical & NOT as 'CO' Nos. which are for Course Curriculum from NAB concepts & students do NOT have any relation & relevance to the same. Different parts of the same question should be answered together.

1.	Discuss the usage & applicability of Terra-Cotta & Paver Blocks with reference to their relevance to construction industry. Why is heart wood preferred by carpenters' as compared to sap wood. Enumerate the methodology of Timber Seasoning, with reference to natural & kiln process. $6 + 4 + 6 = 16$	CO3, CO4 [16]
2.	Elaborate the constituent parts of paints & indicate their relevance in the construction process. Discuss the relevance & cardinality of the BIS codes IS:3495 (Parts 1– 3):1992 with IS:1077:1992 for the test of various parameters of burnt clay bricks. Indicate the steps of manufacture of Chequered Tiles. $6 + 5 + 5 = 16$	CO5, CO2, CO6 [16]
3.	Discuss various types of bonds & closers used in masonry. Distinguish between brick copings & corbels. Enumerate the salient terms used in stairs. Distinguish functionally shores & scaffolds ? Estimate the various forms of false works used in construction practice with reference to scaffolding. $3 + 2 + 3 + 4 + 4 = 16$	CO2, CO7, CO8 [16]
4.	What are the features of Durable Building Stones. Enumerate the merits & demerits of using Stone Masonry over conventional Brick Masonry. Distinguish between Ashler & Rubble Masonry $6 \times 3 = 18$	CO1 [18]