Register Number:……..

KUMARAGURU
college of technology
character is life

B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Third Semester

CIVIL ENGINEERING

U18CEI3203**:** Building Materials and Construction

Use of IS 456 and IS 10262 are allowed

COURSE OUTCOMES

CO1: Identify and suggest the suitable building material for construction of buildings
CO2: Understand the types and tests on cement and concrete
CO3: Classify the type of foundation and masonry
CO4: Understand the types of floors and roofs
CO5: Understand the appropriate supporting structures for building based on the need of the site for carrying out the construction activity.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions: -
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Name any four tests on stone.	CO1	[K_1]
2.	Why is it important for wood to be seasoned?	CO1	[K_2]
3.	Distinguish between nominal mix and design mix.	CO2	[K_2]
4.	List the materials that were utilized to create the false ceiling.	CO2	[K_1]
5.	Define safe bearing capacity.	CO3	[K_1]
6.	What is meant by ‘surkhi’?	CO3	[K_2]
7.	Draw the king post truss in a clean manner.	CO4	[K_2]
8.	Define Dampness.	CO4	[K_1]
9.	What is shoring?	CO5	[K_1]
10.	What flaws exist in plastering?	CO5	[K_1]

Answer any FIVE Questions: -
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Explain the various types of common building stones and their uses.	8	CO1	[K_2]
	b)	Explain the tests to be conducted for conventional coarse aggregates.	8	CO1	[K_2]

12.	a)	Brief types of cement and their functions.	8	CO2	[K_2]
	b)	Design a mix proportion for M25-grade concrete as per the IS method.	8	CO2	[K_3]
13.	a)	Explain Karl von Terzaghi's classification of the foundations.	8	CO3	[K_2]
	b)	Write a brief essay about the qualities and needs of excellent brick masonry.	8	CO3	[K_2]
14.	a)	With a neat sketch, explain the types of roofs based on requirements.	8	CO4	[K_2]
	b)	List the causes of dampness and also state methods of preventing the dampness.	8	CO4	[K_2]
15.	a)	Explain the underpinnings and methods of underpinning in detail.	8	CO5	[K_2]
	b)	Write a short note on the special material used in plastering.	8	CO5	[K_2]
16.	a)	How to ensure the quality of bricks based on field and laboratory tests?	8	CO1	[K_2]
	b)	Write a short note on "Test on Fine Aggregate".	8	CO1	[K_2]

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