Register Number:……..

KUMARAGURU
college of technology
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B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Third Semester

CIVIL ENGINEERING

U18CE13203**:** Building Materials and Construction

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.	Differentiate rough dressing and fine dressing of stones.	CO1	[K_2]
2.	Why is the water absorption test important for bricks?	CO1	[K_2]
3.	Name two common type of cement used in construction.	CO2	[K_1]
4.	List the primary raw material used for PVC production.	CO2	[K_1]
5.	Articulate the concept of permissible soil bearing capacity.	CO3	[K_2]
6.	Explain the rationale behind the utilization of the term "surkhi."	CO3	[K_2]
7.	Render a pristine representation of the king post truss.	CO4	[K_2]
8.	Provide a succinct delineation of dampness.	CO4	[K_2]
9.	Define the term shoring with precision.	CO5	[K_2]
10.	Enumerate imperfections inherent in the plastering process.	CO5	[K_1]

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

11.	a)	Discuss in detail the types of timber, their respective uses and applications in construction.	8	CO1	[K_2]
	b)	Explain the grading of aggregates, emphasizing the role of sieve analysis.	8	CO1	[K_2]
12.	a)	Examine the types of special concrete, emphasizing their distinct properties and applications. Incorporate examples and elucidate the importance of each type in construction.	8	CO2	[K_2]
	b)	Explore the applications and characteristics of geotextiles and ceramic products in construction.	8	CO2	[K_2]
13.	a)	Elaborate on Karl von Terzaghi's categorization of foundations.	8	CO3	[K_2]
	b)	Depict the characteristics and prerequisites of superior brick masonry.	8	CO3	[K_2]
14.	a)	Present a clear diagram to expound on the classifications of roofs according to their specifications.	8	CO4	[K_2]
	b)	Enumerate factors contributing to dampness and articulate preventive techniques.	8	CO4	[K_2]
15.	a)	Provide a comprehensive overview of the principles and techniques involved in underpinning	8	CO5	[K_2]
	b)	Exhibit the specific substances employed in the plastering process.	8	CO5	[K_2]
16.	a)	Showcase the assessment of brick quality through both on-site and laboratory evaluations.	8	CO1	[K_2]
	b)	Illustrate the procedure for conducting a "Fine Aggregate Test."	8	CO1	[K_2]

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