

Reg. No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B. E / B. TECH.DEGREE EXAMINATIONS, MAY 2023

Third Semester

CE18304 – CONSTRUCTION MATERIALS**(Regulation 2018/ 2018A)****TIME:3 HOURS****MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO1	Summarise the classification, properties and tests of stones, bricks and concrete blocks.	2
CO2	Summarise the classification, properties and tests of lime, cement, aggregates and mortar.	2
CO3	Summarise the different types of concrete, their properties, testing procedures and mix design procedure.	3
CO4	Summarise the applications of timbers and other materials.	2
CO5	Summarise the applications of modern materials for construction.	2

PART- A(10x2=20Marks)

(Answer all Questions)

	CO	RBT LEVEL
1. Model the standard size of brick used for construction with neat sketch.	1	2
2. Write any four characteristics of good building stone.	1	2
3. What is meant by hydration of cement? What is its importance?	2	1
4. What is meant by Grade C-43 cement? What are the main active cementing compounds in OPC?	2	2
5. What is meant by modulus of rupture?	3	2
6. Relate the cause for segregation and bleeding.	3	2
7. Enumerate various market forms of steel.	4	1
8. What are the different types of varnishes?	4	1
9. Assess the advantages of using veneer.	5	1
10. Differentiate Geo membrane and Geotextiles.	5	2

PART- B (5x 14=70Marks)

	Marks	CO	RBT LEVEL
11. (a) Develop a flow chart showing the steps involved in the preparation of bricks.	(14)	1	3

(OR)

(b)	Identify the application of concrete blocks and explain its testing procedure in detail.	(14)	1	3
12. (a)	Construct a flow diagram for manufacture of cement by dry process with brief explanation.	(14)	2	3
(OR)				
(b) (i)	Explain the process of hydration of cement.	(7)	2	3
(b) (ii)	Classify grades of cement and give their specification details.	(7)	2	3
13. (a)	With a flow chart explain the step by step process for the manufacturing of concrete.	(14)	3	5
(OR)				
(b)	Construct a flow diagram for manufacture of cement by dry process with brief explanation.	(14)	3	5
14. (a)	What is plywood and list its advantages? State its use in modern buildings.	(14)	4	2
(OR)				
(b)	List the types of glass used in construction. Mention the properties and applications of Fibre glass reinforced plastics.	(14)	4	2
15. (a)	Explain in detail about Reinforced Plastics? What are the properties and uses?	(14)	5	2
(OR)				
(b)	Discuss the various applications of Geosynthesis in Civil Engineering construction works.	(14)	5	2

PART- C (1x 10=10Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Discuss any three curing Techniques for improving the compressive strength of concrete.	(14)	3	3
