CBCS SCHEME

USN | | | | | | | | | | |

18CV34

Third Semester B.E. Degree Examination, July/August 2021
Building Materials and Construction

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions.***

1	a.	What are the requirements of good building stones? Explain.	**(06 Marks)**
	b.	Describe the constituents of good brick earth along with their importance.	**(06 Marks)**
	c.	Explain the importance of shape, size and texture of coarse aggregates in cement concrete making.	**(08 Marks)**
2	a.	Explain bulking of sand with its practical importance.	**(06 Marks)**
	b.	Which are the factors causing deterioration of stone? And write about preservation of stones.	**(06 Marks)**
	c.	Describe the construction and working of Bull's Trench Kiln with sketch.	**(08 Marks)**
3	a.	Explain the functions of foundation.	**(06 Marks)**
	b.	How piles are classified based on function? Explain with sketches.	**(06 Marks)**
	c.	Draw the plan of one and half brick thick English bond. Mention its salient features.	**(08 Marks)**
4	a.	Differentiate between strip footing and strap footing with sketch.	**(06 Marks)**
	b.	Write a note on Ashlar type of stone masonry.	**(06 Marks)**
	c.	Describe the construction and necessity of Grillage foundation with its plan sketch.	**(08 Marks)**
5	a.	Draw the sketch of an elementary arch and level its parts.	**(06 Marks)**
	b.	Write a note on : i) Stone lintel ii) RCC lintel.	**(06 Marks)**
	c.	What are requirements of a good floor? Draw the sketch of ground floor marble flooring with its components.	**(08 Marks)**
6	a.	Explain various modes of failure of an arch with its remedial measures.	**(06 Marks)**
	b.	Differentiate between sloped roof and flat roof with reference to advantages.	**(06 Marks)**
	c.	Draw the sketch of King post wooden roof truss (half part) and label its parts.	**(08 Marks)**
7	a.	Differentiate brick layer's scaffolding over Mason's Scaffolding.	**(06 Marks)**
	b.	What are the requirements of good stair? Briefly explain the types of stairs.	**(06 Marks)**
	c.	With a neat sketch, explain i) Bay window ii) Dormer window.	**(08 Marks)**
8	a.	Explain Raking shore with a neat sketch.	**(06 Marks)**
	b.	Write the requirements of locating door and window.	**(06 Marks)**
	c.	Explain salient features of framed and paneled double shutter door with sketch.	**(08 Marks)**
9	a.	What are the objects and requirements of good plaster?	**(06 Marks)**
	b.	Name and explain constituents of oil paint.	**(06 Marks)**
	c.	Explain procedure of painting i) New wood surface ii) New plastered surface.	**(08 Marks)**
10	a.	Explain the defects in plastering.	**(06 Marks)**
	b.	Explain the procedure adopted in cement – lime plastering.	**(06 Marks)**
	c.	Briefly explain the methods of damp proofing.	**(08 Marks)**

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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