

310307	Roll No. <u> </u>	Total No of Pages: 2
	310307 B. Tech. III - Sem. (Main / Back) Exam., February - 2021 Civil Engineering 3CE4-07 Building Materials and Construction	

Time: 3 Hours

Maximum Marks: 120

Instructions to Candidates:

Part – A: Short answer questions (up to 25 words) 10×2 marks = 20 marks.
All ten questions are compulsory.

Part – B: Analytical/Problem Solving questions (up to 100 words) 5×8 marks = 40 marks. Candidates have to answer five questions out of seven.

Part – C: Descriptive/Analytical/Problem Solving questions 4×15 marks = 60 marks. Candidates have to answer four questions out of five.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting materials is permitted during examination.
(Mentioned in form No. 205)

1. NIL

2. NIL

PART - A

- Q.1 Define the term "DPC". [2]
- Q.2 What do you understand by the term "light weight concrete block"? [2]
- Q.3 What is "Pointing"? [2]
- Q.4 Define the term "Scotia" [2]
- Q.5 Explain in brief about the "Ashlar fine masonry". [2]
- Q.6 Define the term "Shoring". [2]
- Q.7 Define the term "Purlins" [2]

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- Q.8 Define the term "Guniting" [2]
Q.9 What is the lintel? [2]
Q.10 Explain in brief about the "Segmental Arch". [2]

PART - B

- Q.1 Explain the term Flying shore with neat sketch. [8]
Q.2 Enumerate different type of rubble stone masonry. Describe in brief the construction of walls, with curved square rubble masonry. [8]
Q.3 Describe briefly the water absorption test of bricks. [8]
Q.4 What are the possible causes of dampness in building? Explain with neat sketches how damp proofing is done in building. [8]
Q.5 Differentiate between king post roof truss and queen post roof truss with neat sketches. [8]
Q.6 What are the objectives of a partition wall? Describe in brief different types of partition walls used in building, giving suitability of each. [8]
Q.7 Explain basic principle of masonry work. [8]

PART - C

- Q.1 What is the significance of bonding in brick work? Differentiate between English bond and Double Flemish bond with sketches. [15]
Q.2 Define scaffolding and give names of different types of scaffolding. Describe any two of the scaffoldings with neat sketches, which are most commonly used. [15]
Q.3 What is an arch? What are the different materials used for construction of arches? Draw a neat sketch of rough brick arch. [15]
Q.4 What is the foundation? Enlist the names of foundations used. Explain in brief any one of the foundation with neat sketch which are most commonly used. [15]
Q.5 Enumerate different types of staircases used in buildings. Describe any two of the staircase with neat sketches which are most commonly used. [15]