

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-III (NEW) EXAMINATION – WINTER 2020****Subject Code:3130607****Date:10/03/2021****Subject Name:Building Construction Technology****Time:10:30 AM TO 12:30 PM****Total Marks:56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
<b>Q.1</b>	<b>Short Questions</b>	<b>14</b>
	1 Give the standard and nominal size of brick.	
	2 Explain cornice and corbel with figure.	
	3 Explain the purpose of providing cavity wall	
	4 Explain water cement ratio and state its range	
	5 Exposed portions of a vertical surface at right angles to the door or window frame are known as	
	(a) Jambs (b) lintels	
	(c) Reveals (d) Soffits	
	6 The vertical sides of door and window openings provided in a wall are known as	
	(a) Jambs (b) lintels	
	(c) Reveals (d) Soffits	
	7 The Filling in cavities with cement slurry is known as	
	(a) Coping (b) Beam Filling	
	(c) Grouting (d) Gunniting	
	8 Enumerate various defects in plastering.	
	9 Differentiate between shoring and underpinning.	
	10 Enlist the materials used for damp-proofing.	
	11 Explain the purposes of sub-surface investigation.	
	12 Define the term Mortar.	
	13 Enlist the different types of cement.	
	14 Define the given terms:- A) Mullion B) Jamb	
<b>Q.2</b>	(a) What are the advantages of Green building material?	<b>03</b>
	(b) Explain with neat sketch "Combined footing".	<b>04</b>
	(c) What precaution is to be taken for foundation in Black cotton soil? Explain Under-reamed pile foundation.	<b>07</b>
<b>Q.3</b>	(a) Define cavity wall. Enlist its advantages?	<b>03</b>
	(b) Give classification of Lintel and explain any one in detail.	<b>04</b>
	(c) What is the difference between pre cast & cast in situ concrete? Explain the process of manufacturing pre cast products.	<b>07</b>
<b>Q.4</b>	(a) Define mortar. Explain cement and lime mortar.	<b>03</b>
	(b) Write the difference between Rubble masonry and Ashlar masonry.	<b>04</b>
	(c) Draw the typical sketches, showing the following and define them:	<b>07</b>
	a) Corbel, b) Jambs, c) Frog, d) Queen closer	
	e) King closer, f) Coping, g) Stretcher	

<b>Q.5</b>	<b>(a)</b> Describe the requirements of Good plaster.	<b>03</b>
	<b>(b)</b> Describe various precaution measures to minimize the danger of fire.	<b>04</b>
	<b>(c)</b> Enlist various types of shores. Explain Raking shore in detail with neat sketch.	<b>07</b>
<b>Q.6</b>	<b>(a)</b> What is the difference between plastering and pointing?	<b>03</b>
	<b>(b)</b> Describe essential requirements of floor.	<b>04</b>
	<b>(c)</b> Enlist Types of Scaffolding and explain any two in detail.	<b>07</b>
<b>Q.7</b>	<b>(a)</b> Discuss cause of fire and its precautionary measures.	<b>03</b>
	<b>(b)</b> Discuss various principles to be followed for providing Damp proofing.	<b>04</b>
	<b>(c)</b> Write short note on (1) Thermal insulation (2) Anti-termite treatment	<b>07</b>
<b>Q.8</b>	<b>(a)</b> Explain in brief (1) Sub Surface investigation	<b>03</b>
	<b>(b)</b> Draw the Sketch (1) Brick Jack arch Flooring (2) Concrete jack arch flooring (3) Ribbed Flooring (4) Flag stone Floor	<b>04</b>
	<b>(c)</b> Define shoring and under pinning. Explain any one method of each	<b>07</b>

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