

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
Q.1	Short Questions	14
	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	
Q.2	(a) What are the advantages of Green building material?	03
	(b) Explain with neat sketch "Combined footing".	04
	(c) What precaution is to be taken for foundation in Black cotton soil? Explain Under-reamed pile foundation.	07
Q.3	(a) Define cavity wall. Enlist its advantages?	03
	(b) Give classification of Lintel and explain any one in detail.	04
	(c) What is the difference between pre cast & cast in situ concrete? Explain the process of manufacturing pre cast products.	07
Q.4	(a) Define mortar. Explain cement and lime mortar.	03
	(b) Write the difference between Rubble masonry and Ashlar masonry.	04
	(c) Draw the typical sketches, showing the following and define them:	07
	a) Corbel, b) Jambs, c) Frog, d) Queen closer	
	e) King closer, f) Coping, g) Stretcher	

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