

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– III (NEW) EXAMINATION – SUMMER 2022****Subject Code:3130607****Date:28-07-2022****Subject Name:Building Construction Technology****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	<b>MARKS</b>
<b>Q.1</b> (a) Give names of various methods of demolition of structures.	<b>03</b>
(b) What is meant by Green Building? Explain in brief.	<b>04</b>
(c) What are the causes of the failure of the foundation? What remedial measures would you adopt?	<b>07</b>
<b>Q.2</b> (a) Explain about pre-cast and cast-in situ construction.	<b>03</b>
(b) Differentiate between stone masonry and brick masonry.	<b>04</b>
(c) Suggest and briefly explain the method of soil investigation when the depth of exploration is substantial and speed of investigation is of prime importance.	<b>07</b>
<b>OR</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) Explain chemical grouting method to control ground water.	<b>03</b>
(b) Which are the remedial measures to prevent caisson diseases?	<b>04</b>
(c) Describe factors to be consider in order to limit fire spread.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Explain in brief the essential requirements of a good floor.	<b>03</b>
(b) Discuss various principles to be followed for providing Damp proofing.	<b>04</b>
(c) Write a short note on 'Termites and their attack on building'.	<b>07</b>
<b>Q.4</b> (a) What is the difference between plastering and pointing?	<b>03</b>
(b) Draw a neat and labelled sketch of casement window.	<b>04</b>
(c) Explain the methods of mixing, placing, compacting and curing of concreting.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Define Intrados, Rise and Springer in connection with arch.	<b>03</b>
(b) Explain Raking shores with a neat sketch. What are the various points to be noted, while constructing raking shores?	<b>04</b>
(c) Draw a neat sketch: (a) Framed and Panelled Door (b) Dog-legged stairs	<b>07</b>
<b>Q.5</b> (a) Enlist various roofing materials.	<b>03</b>
(b) Discuss precautions to be taken during construction of cavity wall.	<b>04</b>
(c) Enumerate various types of cement and discuss about sulphate resistance cement.	<b>07</b>

**OR**

- Q.5** (a) Enlist various points to be remembered during any building construction site visit as a Civil Engineer. **03**
- (b) Draw the Sketch (1) Brick Jack arch Flooring (2) Concrete jack arch flooring (3) Ribbed Flooring (4) Flag stone Floor **04**
- (c) Classify pitched roof and explain king post truss with neat and labelled sketch. **07**

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