

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering - SEMESTER - III EXAMINATION - SUMMER 2025

Subject Code: 3130607

Date: 29-05-2025

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.**

	Marks
Q.1 (a) Enlist and explain the need of Subsurface Investigation.	03
(b) Differentiate between shallow and deep foundation.	04
(c) Write a short note on failure of foundation and its remedial measures.	07
Q.2 (a) Define : Lap, Frog, Perpend	03
(b) Give the classification of stone masonry.	04
(c) Enumerate different types of pile. Also explain each with their usage and selection criteria.	07
OR	
(c) List out the various bonds in brick masonry. Briefly describe double Flemish bond with neat sketch.	07
Q.3 (a) What are the uses of caissons?	03
(b) Classify the lintels based on the materials used for their construction.	04
(c) Explain various components of Arch with neat sketch.	07
OR	
(a) What are the defects in plastering?	03
(b) Discuss the characteristics of an ideal paint.	04
(c) Describe different types of pointing with illustration.	07
Q.4 (a) Write the benefits of 3D printing in building construction.	03
(b) Distinguish between plain and reinforced cement concrete. What is the need of reinforcement?	04
(c) Draw typical sketches of form work for a beam slab floor.	07
OR	
(a) Define : Frame, Shutter, Horn	03
(b) Write a short note on location selection for doors and windows.	04

(c) Mention the essential requirements of a floor and factors affecting selection of flooring material. 07

Q.5 (a) Define and enlist the forms of pitched roof. 03

(b) Mention the different types of roof coverings with their characteristics. 04

(c) Give the names of methods used for foundation dewatering. Explain well point system in detail with sketch. 07

OR

(a) Summarize rating systems for green building. 03

(b) Under which conditions underpinning is done? 04

(c) Differentiate between shoring and scaffolding. 07
