

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-I&II EXAMINATION – SUMMER 2025

**Subject Code:3110004**

**Date:30-06-2025**

**Subject Name:Basic Civil Engineering**

**Time:10:30 AM TO 01:00 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.

	MARKS
<b>Q.1</b> (a) What is FSI? Discuss in brief.	<b>03</b>
(b) Write a short note on low cost housing.	<b>04</b>
(c) Enlist and explain principles of planning.	<b>07</b>
<b>Q.2</b> (a) Describe primary divisions of surveying.	<b>03</b>
(b) Enlist various types of cement and discuss the properties of any two.	<b>04</b>
(c) Explain with neat sketch various components of building & its functions	<b>07</b>
<b>OR</b>	
(c) Enlist different bonds of Brick and Describe English bond in detail	<b>07</b>
<b>Q.3</b> (a) Explain Application of Total station.	<b>03</b>
(b) Explain traffic signals in brief.	<b>04</b>
(c) Enlist various building services and objectives of building services.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) As a Civil Engineer discuss your role in society	<b>03</b>
(b) Draw any four symbols used in electrical layout.	<b>04</b>
(c) Give classification of solid waste and describe why its segregation in wet and dry is necessary?	<b>07</b>
<b>Q.4</b> (a) What is nominal dimensions for door and window?	<b>03</b>
(b) Draw sketch of Dumpy level and show all parts.	<b>04</b>
(c) Write short note on BRTS.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Enlist Instruments used in chain surveying.	<b>03</b>
(b) Write a short note on rain water harvesting systems	<b>04</b>
(c) Describes characteristics of contour in detail.	<b>07</b>
<b>Q.5</b> (a) Give application of Remote sensing	<b>03</b>
(b) Compare BRTS and Metro.	<b>04</b>
(c) Define : (1) offsetting (2) Base line (3) Magnetic Meridian (4) True Bearing (5) Reduced Bearing (6) Bench Mark (7) Mean Sea Level	<b>07</b>

**OR**

- Q.5** (a) Give Dimension of Modular Brick and discuss characteristics of first class brick **03**
- (b) Give full form of: a) DPC b) MH c) FSL d) BBCC **04**
- (c) Discuss Heritage structures & its conservations. **07**

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