GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER–I & II EXAMINATION – WINTER 2024

Subject Code:BE01000101   **Date:18-01-2025**
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
Q.1	**(a)**	Discuss scope of civil engineering.	**03**
	(b)	Discuss various grades of concrete.	**04**
	(c)	Discuss classification of buildings based on structure.	**07**
Q.2	**(a)**	Convert the following RB in to W.C.B: 1) N55°30'W 2) S29°00'W 3) S23°00'E	**03**
	(b)	Differentiate between plane surveying and geodetic surveying.	**04**
	(c)	What is FRP? Write uses and characteristics of FRP.	**07**

OR

	(c)	Discuss classification of bricks and what are the properties of a good brick?	**07**
Q.3	**(a)**	Discuss aims and objectives of town planning.	**03**
	(b)	Differentiate between English bond and Flemish bond.	**04**
	(c)	What are the elementary principles of building planning? Describe them briefly.	**07**

OR

Q.3	**(a)**	How would you select the materials for low-cost housing?	**03**
	(b)	Explain site plan and key plan.	**04**
	(c)	Describe the various principles of zoning.	**07**
Q.4	**(a)**	What are the Indian standards for drinking water?	**03**
	(b)	What are the effects of solid waste?	**04**
	(c)	Discuss various pipes used in the house drainage plumbing system.	**07**

OR

Q.4	**(a)**	Write advantages and disadvantages of BRTS.	**03**
	(b)	Draw a typical plan for drainage of a small house.	**04**
	(c)	Describe pillars of smart city.	**07**
Q.5	**(a)**	Write applications of surveying.	**03**
	(b)	What do you understand by indirect ranging? Describe in detail with neat sketch.	**04**
	(c)	The following are bearings of a closed traverse ABCDA. Find out interior angles and correct them if necessary.	**07**

LINE	FB	B.B
AB	55°30'	235°00'
BC	113°00'	293°30'
CD	190°00'	10°00'
DA	279°00'	99°00'

OR

Q.5	**(a)**	Discuss characteristics of contours with suitable sketches.	**03**
	(b)	Explain temporary adjustments of level.	**04**
	(c)	Describe briefly the application and uses of GPS	**07**

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