

Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-I & II (NEW) EXAMINATION – SUMMER 2024

Subject Code:3110004

Date:29-06-2024

Subject Name:Basic Civil Engineering

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.

	Marks
Q.1 (a) Explain role of Civil engineers.	03
(b) Discuss various grades of Concrete.	04
(c) What are the key components of GIS? Describe them briefly.	07
Q.2 (a) Define the following terms: a) Mean Sea Level b) Level Surface c) Bench Mark	03
(b) Explain site plan and key plan.	04
(c) Discuss various pipes used in the house drainage plumbing system.	07
OR	
(c) Draw a detailed sketch of a cross section of a wall showing the components of the building.	07
Q.3 (a) Discuss aims and objectives of Town planning.	03
(b) Differentiate between plane survey and geodetic survey.	04
(c) Enumerate various principles of planning and explain any two in detail.	07
OR	
Q.3 (a) Draw traffic signals for (i) No Parking (ii) Over taking prohibited.	03
(b) What are the benefits of Energy efficient building?	04
(c) Describe the various principles of Zoning.	07
Q.4 (a) Differentiate between W.C.B and Q.B system.	03
(b) Write short note on FAR.	04
(c) Describe water borne diseases with control measures.	07
OR	
Q.4 (a) Enlist Instruments used in chain surveying	03
(b) Give full form of: a) MH b) FSL c) BBCC d) RCC	04
(c) Describe pillars of smart city.	07
Q.5 (a) Discuss different types of Bearings.	03
(b) Explain with sketch the use of Line ranger.	04
(c) Explain various aids and devices used to control and regulate traffic.	07
OR	
Q.5 (a) Describe with sketches characteristics of contours.	03
(b) What are the temporary adjustments of Level? How are they done?	04
(c) The following are the fore bearings of a closed traverse. Calculate back bearings and interior angles of the traverse.	07

Line	F. B
AB	N 45°30' E
BC	S 60°00' E
CD	S 10°30' W
DA	N 75°45' W