

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2021****Subject Code:3154011****Date:27/12/2021****Subject Name:Building & Town Planning****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) Draw ground floor and first-floor plan, sectional and front elevation of a two-story residential building made on a built-up area of 375 m ² considering building bye-laws and building planning principle. Assume the building is constructed in R-2 zones (city outskirts). Assumptions made in the drawing should be stated clearly.	14
Q.2	(a) State building bye-laws as per national building code and general development control regulation	03
	(b) Explain the orientation of a building components.	04
	(c) Explain the planning of the community center building for a town with a population of 100000 with a line sketch plan showing all necessary units with dimensions and circulation.	07
OR		
	(c) Enlist the principle of building planning and explain any two in detail.	07
Q.3	(a) Critically differentiate between one point and two-point perspective?	03
	(b) Briefly discuss with sketches 'Contrast' and 'Balance' principles of architecture.	04
	(c) State the principles followed in the planning of earthquake-resistant buildings.	07
OR		
Q.3	(a) Draw the symbols used for water supply, drainage lines, power lines, gas supply lines in a typical building drawing.	03
	(b) Critically differentiate between town planning and town design.	04
	(c) Enlist the principle of Town Planning and explain any two in detail.	07
Q.4	(a) Explain circulation in town planning? How is it different from circulation in building planning?	03
	(b) What are the advantages and disadvantages of vertical growth of the town?	04
	(c) Explain various steps involved in the preparation of the master plan.	07
OR		
Q.4	(a) Define urban scale and spaces.	03

- (b) Discuss the importance of zoning in town planning. **04**
- (c) Explain the steps involved in the preparation of a development plan. **07**
- Q.5** (a) Discuss various forms of town based on natural growth. **03**
- (b) What are the factors responsible for slum development? **04**
- (c) Describe the principles of urban conservation in town design. **07**
- OR**
- Q.5** (a) Explain the concept of a smart city. **03**
- (b) Discuss survey techniques used in planning and urban design. **04**
- (c) Write a short note on any four: **07**
- Circulation
 - Landscape
 - Town Center
 - Civic centers
 - CBD