

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF ENGINEERING – SEMESTER 3 – EXAMINATION – SUMMER 2026

Subject Code: 3130609

Date: 19/06/2026

Subject Name: Building and 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.**

- Q.1** (a) Enlist the elements of architecture composition **03**
(b) Explain the classification of buildings based on structural design. **04**
(c) Draw a plan of a two story residential building on a plot size 16 m * 19 m for a family of 6 person belongs to MIG, take FSI 1.5, as per principles of planning and architecture by considering building bye laws. Also prepare schedule of opening and area table. Assume North direction and other necessary data. **07**
- Q.2** (a) Enumerate the various components of building bylaws. **03**
(b) Explain key features of RERA. **04**
(c) Describe the building water supply system and illustrate it with a diagram. **07**
- OR
- Q.2** (c) Explain the house drainage system with neat sketch. **07**
- Q.3** (a) Define (i) Vanishing point (ii) Picture plane (iii) Isometric view **03**
(b) Explain the concept and characteristics of a satellite town. **04**
(c) Describe how software is used for building planning and generation of 2D models. **07**
- OR
- Q.3** (a) List the various types of surveys carried out for planning purposes. **03**
(b) Explain the concept of two-point perspective drawing, illustrating with a diagram. **04**
(c) Discuss the essential requirements for earthquake-resistant buildings. **07**
- Q.4** (a) Define (i) Master plan (ii) Margin (iii) Mezzanine floor **03**
(b) Distinguish between NBC and local building bye-laws. **04**
(c) Explain the features and functions of ODPS software. **07**
- OR
- Q.4** (a) List out the disadvantages of ribbon development. **03**
(b) Discuss the significance of civic surveys for effective town planning. **04**
(c) Explain the growth of town in detail. **07**
- Q.5** (a) Enlist the various type of land uses in town planning. **03**
(b) Explain the significance of road networks in town planning. **04**
(c) Explain the stages involved in the preparation of a master plan. **07**
- OR
- Q.5** (a) Define (i) Neighborhood unit (ii) Zoning (iii) CBD **03**
(b) Describe the concept of the Multiple Nuclei Model. **04**

(c) Discuss different techniques for removing or improving slums.

07
