

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III (NEW) EXAMINATION – SUMMER 2022****Subject Code:3130609****Date:15-07-2022****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.

	Marks
Q.1 (a) Define building bye-laws. What are the objectives of building bye-laws?	03
(b) Enlist various principles of planning of a building. Explain the importance of aspect and prospect for residential buildings.	04
(c) Draw ground floor plan of a single storied residential building on a 14 m X 20 m plot area for a family of four persons as per building bye laws and principles of planning and architecture. Also provide an inbuilt staircase which permits access to first floor. Assume suitable north direction and front road.	07
Q.2 (a) Explain usefulness and importance of National Building Code (NBC).	03
(b) Explain bye-laws of lighting and ventilation.	04
(c) Give an overview of RERA and explain its importance.	07
OR	
(c) What is ODPS? Explain its working.	07
Q.3 (a) Draw Water Supply line diagram for a residential building to supply water from water main to the various plumbing units of house. Assume necessary Data.	03
(b) Enlist and explain the factors considered in planning of school building.	04
(c) What is meant by the term zoning? Explain the objectives and advantages of zoning.	07
OR	
Q.3 (a) Draw drainage system plan to dispose both soil and waste water for a residential building. Assume necessary Data.	03
(b) Enlist and explain the factors considered in planning of hospital building.	04
(c) What is meant by the term slum clearance? Explain the methods by which slum clearance programmes can be made effective.	07
Q.4 (a) What does perspective drawing mean? Why is the perspective drawing required?	03
(b) Explain the terms: Station Point, Vanishing point, Picture plane, Horizontal plane	04
(c) Explain how an architectural composition unity is achieved?	07
OR	
Q.4 (a) Explain the basic principle of perspective projection.	03
(b) Explain the classification of perspective views based on the number of vanishing points.	04
(c) Explain symmetrical and unsymmetrical balance architectural composition	07
Q.5 (a) Enlist and explain various elements of building drawing.	03
(b) Draw the neat sketch of site plan and layout plan and differentiate them.	04

- (c) Discuss usefulness of software applications in planning and drawing for 2D model of a building. **07**

OR

- Q.5** (a) What is difference between line drawing and detailed drawing? **03**
(b) Explain following terms (1) Plinth Area (2) Floor area (3) FAR (4) FSI **04**
(c) Discuss usefulness of software applications in planning and drawing for 3D model of a building. **07**
