

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III EXAMINATION – SUMMER 2025

**Subject Code:3130609**

**Date:31-05-2025**

**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.

	<b>Marks</b>
<b>Q.1</b> (a) Enlist the principles of architectural composition.	<b>03</b>
(b) Define the terms: (i) FAR (ii) Control Line (iii) Set back (iv) Light Plane	<b>04</b>
(c) Draw ground floor plan of a residential building on a 16 x 20m plot area as per building bye laws and principle of planning and architecture. Assume suitable direction of north and front road. Also assume necessary data.	<b>07</b>
<b>Q.2</b> (a) Explain objectives of Building bye-laws.	<b>03</b>
(b) What is BIM? Give advantages of BIM.	<b>04</b>
(c) Write short note on ODPS.	<b>07</b>
<b>OR</b>	
(c) Explain principles of planning.	<b>07</b>
<b>Q.3</b> (a) Explain typical characteristics of perspective drawings.	<b>03</b>
(b) Differentiate between Isometric view and Perspective view.	<b>04</b>
(c) Discuss software application in building planning and building drawing for 2D model generation.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Explain with sketches, house drainage system of a building.	<b>03</b>
(b) Differentiate one point, two point and three-point perspective view.	<b>04</b>
(c) Briefly explain behaviour of structures during earthquake and possible mode and pattern of failure.	<b>07</b>
<b>Q.4</b> (a) Differentiate between regional and civic survey.	<b>03</b>
(b) Explain any one case study of Smart city.	<b>04</b>
(c) Discuss in brief growth of town according to direction.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Explain importance of Zoning.	<b>03</b>
(b) Write short note on Multiple nuclei model.	<b>04</b>
(c) Briefly outline causes, characteristics and effects of slum.	<b>07</b>
<b>Q.5</b> (a) What are the objectives of building services.	<b>03</b>
(b) Write characteristics of CBD.	<b>04</b>
(c) What are the principles of neighborhood planning.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Enlist various components of neighbourhood.	<b>03</b>
(b) Write explanatory note on: Satellite town.	<b>04</b>
(c) What is NBC? How it is helpful in planning and design of buildings?	<b>07</b>

\*\*\*\*\*

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-III (NEW) EXAMINATION – SUMMER 2024**

**Subject Code:3130609**

**Date:29-06-2024**

**Subject Name: Building and Town Planning**

**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
<b>Q.1</b>	(a) Enlist the Principles of planning and explain any one.	<b>03</b>
	(b) Briefly outline the factors influencing the selection of site for various type of public Building.	<b>04</b>
	(c) Draw a plan of a two storied residential building on a plot size 18m * 22 m for a family of 5 person belongs to MIG, take FSI 1.1, 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.	<b>07</b>
<b>Q.2</b>	(a) Define terms: (i) Control Line (ii) Building Line (iii) Plinth Area.	<b>03</b>
	(b) Explain objectives of ODPS.	<b>04</b>
	(c) Draw a line diagram of a Bank. Take size of units according to general requirements of public buildings.(Basement, Ground Floor, First Floor)	<b>07</b>
<b>OR</b>		
	(c) Explain with sketch house drainage system in building.	<b>07</b>
<b>Q.3</b>	(a) Define terms: (i) Station point (ii) Picture plan (iii) Line of Sight.	<b>03</b>
	(b) Explain satellite town.	<b>04</b>
	(c) Draw two-point perspective view of sketch shown in <b>Figure 1</b> .	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Enlist the type of surveys conducted for planning.	<b>03</b>
	(b) Differentiate between one point and two point perspective.	<b>04</b>
	(c) Discuss the general features of earth quake resistant buildings.	<b>07</b>
<b>Q.4</b>	(a) Define terms: (i) Master plan (ii) Margin (iii) Mezzanine floor.	<b>03</b>
	(b) Differentiate between NBC and local building byelaws.	<b>04</b>
	(c) Explain BIM in detail.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) List out the disadvantages of ribbon development.	<b>03</b>
	(b) Explain the necessity of survey for town planning purpose.	<b>04</b>
	(c) Explain Growth of town in detail.	<b>07</b>

- Q.5 (a) Enlist the various type of land uses. 03  
 (b) Explain the importance of road network in town planning. 04  
 (c) Discuss the stages of preparation of master plan. 07
- OR**
- Q.5 (a) Define terms: 03  
 (i) Neighborhood unit (ii) Zoning (iii) CBD  
 (b) Explain multiple Nuclei model 04  
 (c) Discuss the various methods of slum clearance 07

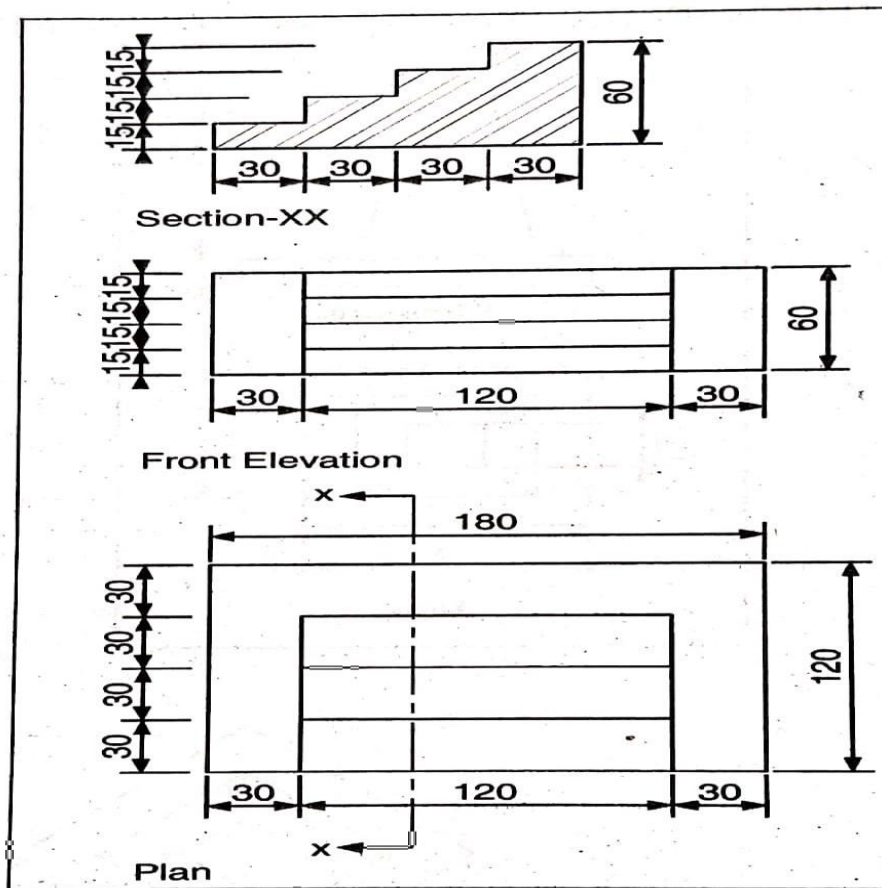


Fig. No. 1

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III(NEW) EXAMINATION – SUMMER 2023****Subject Code:3130609****Date:28-07-2023****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.

	<b>Marks</b>
<b>Q.1</b> (a) Explain necessity of National Building Code (NBC).	<b>03</b>
(b) Explain Following terms: (1) FAR (2) Layout plan (3) Height of building (4) Set back	<b>04</b>
(c) Draw ground floor plan and first floor plan for two stories residential building on plot of 350 m <sup>2</sup> area for a family of 6 persons. Use principle of building planning and building bye laws. Assume north direction, front road and other necessary data.	<b>07</b>
<b>Q.2</b> (a) Write a short note on BIM.	<b>03</b>
(b) Define Building bye laws and also describe application of building bye laws.	<b>04</b>
(c) Explain in detail Principle of planning.	<b>07</b>
<b>OR</b>	
(c) Write short note on ODPS.	<b>07</b>
<b>Q.3</b> (a) Define following: (1) Picture plane (2) Vanishing Point (3) Center of vision.	<b>03</b>
(b) Explain principles of architectural composition.	<b>04</b>
(c) Draw line diagram of Bank (Public Building). Take size of units according to the general requirement of public building as per bye laws.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Explain perspective view and its importance.	<b>03</b>
(b) How building is made Earthquake resistant using construction technique?	<b>04</b>
(c) Discuss software application in building planning and drawing for 2D model.	<b>07</b>
<b>Q.4</b> (a) Differentiate one point and two point perspective view.	<b>03</b>
(b) Enlist the general principle in construction of earthquake resistance building and explain any one.	<b>04</b>
(c) Assuming suitable position and height of the observer and other essential data to draw a perspective view of a single room of 6m X 5m with the following details:	<b>07</b>
(1) Plinth height= 1.0 m	
(2) Wall thickness= 0.3m	
(3) Window sill level= 0.9m	
(4) Long wall window side= 2.2m X 1.2m	
(5) Door= 1.2m X 2.1m	
(6) Clear floor height= 3.0m	
Assume other necessary data if required.	
<b>OR</b>	
<b>Q.4</b> (a) Write down the necessity of civic survey.	<b>03</b>
(b) Explain principle of neighborhood planning.	<b>04</b>
(c) Discuss growth of town according to origin and direction.	<b>07</b>
<b>Q.5</b> (a) Define Zoning and enlist principle of zoning.	<b>03</b>
(b) Write short note on British period till 1947	<b>04</b>
(c) Discuss in detail characteristics of smart city.	<b>07</b>

**OR**

- |            |            |   |           |
|------------|------------|---|-----------|
| <b>Q.5</b> | <b>(a)</b> | Explain CBD and its characteristics.                                | <b>03</b> |
|            | <b>(b)</b> | Explain classification of land use.                                 | <b>04</b> |
|            | <b>(c)</b> | Explain the causes of slum; Describe the methods of slum clearance. | <b>07</b> |