

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2022****Subject Code:3154011****Date:11-01-2023****Subject Name:Building & 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.

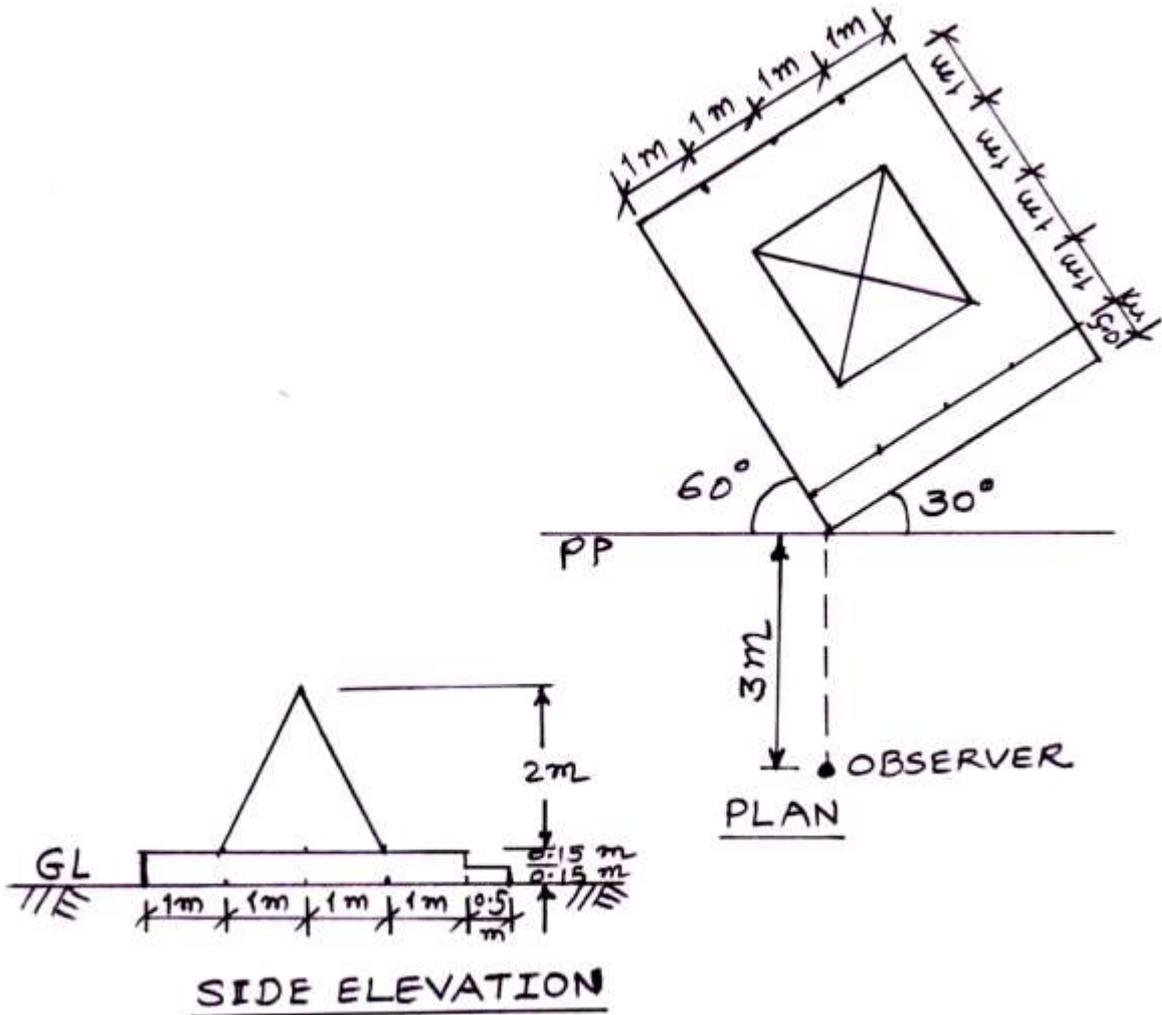
MARKS

- Q.1** (a) Plot area of one row house 1 BHK residential unit (for GF only) is 9m x 12m. 9m width is along the front roadside. Assume suitable north direction and necessary data considering building bye laws, principles of planning and architecture. Using a suitable scale draw a layout plan of unit in plot with margins. **03**
- (b) Draw a detailed GF plan of the residential unit with toilet units for the data given in Q. 1 (a). **07**
- (c) Draw the detailed sectional elevation for the data given in Q.1 (a) and GF plan drawn as per Q. 1 (b). **04**
- Q.2** (a) Define with sketch: Vanishing Point, Picture Plane **03**
- (b) Discuss with sketches: (i) Aspect, (ii) Roominess – principles of the Building Planning. **04**
- (c) Draw perspective view of given structure in figure 1. Take observer's position 3 m from picture plane and eye level at 1.2m from GL. **07**
- OR**
- (c) Explain the necessity of Building Byelaws and National Building Code. **07**
- Q.3** (a) Briefly discuss key features and disadvantages of RERA. **03**
- (b) Discuss with sketches: (i) Contrast, (ii) Proportion – principles of the Architecture. **04**
- (c) Draw line sketch plan showing all necessary units with dimensions and circulation of the Bank Building for the town of 0.5 Lakh population. **07**
- OR**
- Q.3** (a) Define: FSI, Built up area, Mezzanine floor **03**
- (b) Briefly describe the GDCR. **04**
- (c) Draw line sketch plan showing all necessary units with dimensions and circulation of the Public Health Centre for the town of 10,000 population. **07**
- Q.4** (a) What are the objectives of Town Planning? **03**
- (b) Describe types of growth of towns according to direction with sketches. **04**
- (c) Describe with sketches various points to be considered while planning of earthquake resistant buildings. **07**
- OR**
- Q.4** (a) What do you understand by 'Smart City'? **03**
- (b) Briefly describe the objectives and principle of zoning in town planning. **04**
- (c) Discuss the reasons of forming slums and their impacts. What are the different methods of slum improvements? **07**

- Q.5 (a) What is 'Urban Scale'? 03
 (b) Critically differentiate between Master plan and Development plan. 04
 (c) Write a short note on: (i) Civic centers, (ii) Green belt. 07

OR

- Q.5 (a) Define: CBD, Cul-de-sac, Setback 03
 (b) Discuss the 'Principles of Urban Conservation'. 04
 (c) Write a short note on: (i) Design for the Pedestrians, (ii) Waterfront development. 07



Q.2(c) Figure:1
