Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 130603 **Date: 04-01-2013**

Subject Name: Building and Town Planning

Time: 10.30 am – 01.30 pm **Total Marks: 70**

Instructions:

1. **Before attempting any question read, study and understand the question paper.**
2. **Attempt all questions.**
3. **Make and state clearly suitable assumptions wherever necessary.**
4. **Figures to the right indicate full marks.**

Q.1 **(a)** Enlist and describe the information collected during site visit prior to planning. Also describe the information collected from client while conducting the discussions prior to planning. **07**

(b) You are required to design an independent unit on a plot no. 15. (As indicated in figure No. 1) for the owner who is lawyer by profession having older parents and one college going daughter. The owner has indicated following requirements. **07**

On Ground floor.

- Consulting Room with separate access from outside & inside and Toilet.
- Drawing cum dinning room.
- Kitchen with ample storage space.
- Parent's bedroom with attached toilet and dressing.
- Internal stairs which access from dinning area.
- Usual facilities like common bathroom, w.c., passages, verandah, exit from kitchen, etc.

On First Floor:

- Master's bed with attached toilet and dressing.
- Daughter's bed room with enough space for study and attached toilet.
- Family Lounge with common Toilet.

Total cost of project is about Rs. 25,00,000/-(excluding cost of land), and considering the specifications given by client the Cost of construction may be taken as Rs. 8000/- per sq. m. (Permissible built up area may be taken as 40 % and FSI = 1.0)

Your Job:

Estimate target design area , allocate area , carryout grouping, and decide room dimensions, Determine Type, locations and sizes of doors, windows, ventilators and other openings. Assume and state various heights. Design Stairs for assumed heights.

Prepare detailed line plans for ground floor and First floor indicating all details. Also prepare schedule of opening for the proposed design.

Q.2	**(a)**	For Q1(b) Draw detailed plan as required for submission drawing for ground floor Only. And prepare area Table	**07**
	(b)	For Q2.(a) Select proper section plane and Draw detailed sectional elevation as required for submission drawing..	**07**
		OR	
	(b)	For Q.2(a) plan draw foundation plan, giving all the details required practically	**07**
Q.3	**(a)**	Explain Objectives, Scope and Applicability of Building Bye Laws and Development control regulations.	**07**
	(b)	Define the term 'town planning' and describe the evolution of town. Also Discuss objectives and principles of town planning.	**07**
		OR	
Q.3	**(a)**	Briefly define and/or explain following (any four): • Consolidated Open Plot, • margin rules for low rise buildings, • margin rules for high rise buildings with podium), • development and projections permitted in margin space, • Bye laws governing compound wall.	**08**
	(b)	Write detail about the type and ways of collecting the information in survey. Also Write detailed note on Civic survey .	**06**
Q.4	**(a)**	Briefly explain behavior of structures during earthquake and possible mode and pattern of failure.	**07**
	(b)	Enlists different types of zoning. Write detailed note on 'aspect of zoning'. Differentiate the meaning between zoning and reservation in town planning	**07**
		OR	
Q.4	**(a)**	Briefly explain the guidelines for design of non engineered earthquake resistant brick masonry structures	**07**
	(b)	Define slum. Write brief note on methods to clear slum OR prevention of slum formation	**07**
Q.5	**(a)**	Discuss factors to be considered while selecting site for public building with reference to type of public building.	**07**
	(b)	Draw one point perspective for the mass composition given in figure no.2. Take edge AB touching the picture plane and Take distance of observer as 12000 from picture plane and height of observer 2000 mm from ground plane	**07**
		OR	
Q.5	**(a)**	Define master plan or development plan. Give its objectives. Enlist data required for preparing master plan.	**07**
	(b)	Draw two point perspective for the mass composition given in figure no.2. Take corner A touching the picture plane, edge AB making angle of 30° with the picture plane. and Take distance of observer as 12000 from picture plane and height of observer 6000 mm from ground plane	**07**

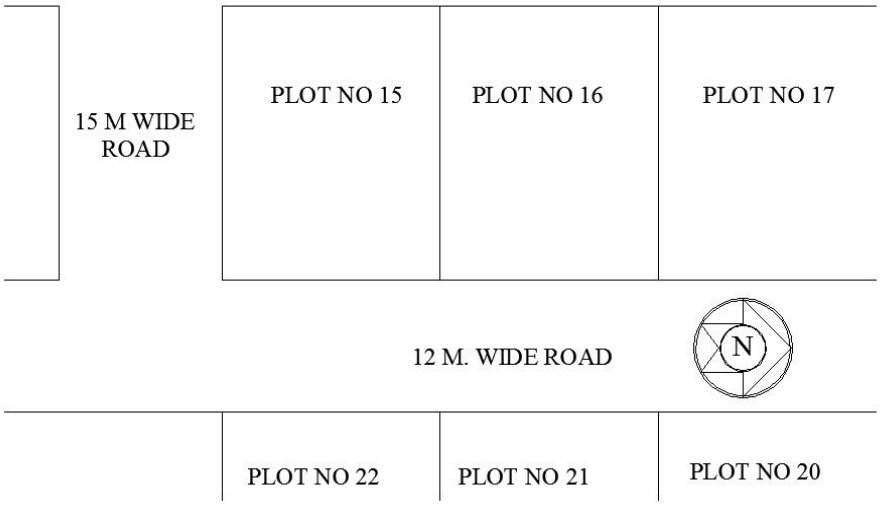
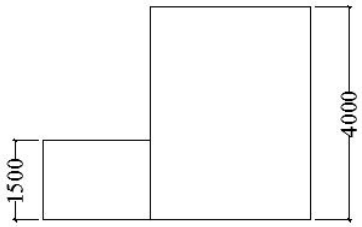
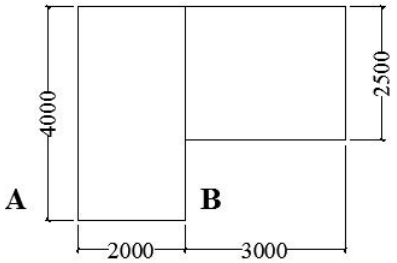


FIGURE NO. 1



ELEVATION



PLAN

FIGURE NO 2

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