

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-III Remedial Examination May 2011****Subject code: 130603****Subject Name: Building and Town Planning****Date: 27-05-2011****Time: 10.30 am – 01.30 pm****Total Marks: 70****Instructions:**

1. Read all questions very carefully and attempt all questions.
2. State any suitable assumptions made wherever necessary.
3. Figures to the right indicate maximum marks.

- Q.1** Your client has purchased plot no.20. as shown in figure no.1. At present he wants to construct only ground floor and have internal stairs which shall open be easily accessible from inside as well as outside. As such he doesn't intend to construct anything except staircase cabin on first floor. Requirements are specified as follows: **14**
- Drawing Room. Consulting room with attached toilet and separate access from outside and also from inside, Kitchen cum dinning room with attached store and access to outside, Two bed Rooms with attached toilets, Common toilet ,Verandah and wide circulation paths. Applicable developmental regulation are as follows:
- Permissible built-up area = 40 %
 - FSI permissible = 1.1
- Perform design steps like area allocations, trial grouping , determine various heights, room sizes , doors, windows, ventilators, other openings etc., Design Stair case and prepare schedule of opening (05)
- Prepare detailed plan with all relevant details worked out. (09)
- Q.2 (a)** Prepare detailed sectional elevation (by selecting section plane passing through stairs) with all relevant details based upon plan prepared in Q.1 **07**
- (b)** Prepare elevation with all relevant details based upon plan prepared in Q.1 **07**
- OR**
- (b)** Explain Objectives, Scope and Applicability of Building Bye Laws. **07**
- Q.3 (a)** Briefly define and/or explain following: **04**
1. Control line and building line
 2. Built up area
 3. Floor space index
 4. Consolidated Open Plot
- (b)** Enlist Principles of Planning and discuss its influence final design. **05**
- (c)** Briefly outline causes, characteristics and effects of slum **05**
- OR**
- Q.3 (a)** Briefly outline the factor influencing the selection of site for various types of public buildings. **04**
- (b)** Explain what precautions you will take at the time of planning the Building to make it earthquake resistant ? Briefly explain the guidelines for design of non engineered earthquake resistant brick masonry structures. **05**
- (c)** Discuss Slum Clearance & its methods **05**

- Q.4 (a)** Explain purpose of submission drawing, working drawing and record drawing. Also enlist various working drawings that may be needed for construction of high rise commercial complex. **05**
- (b)** Draw one point perspective drawing for the composition shown in figure no.2 (select most appropriate position and height of center of vision) **09**
- OR
- Q.4 (a)** State objectives and requirements of 'Master plan' for developments. Name different types of data to be collected to prepare the master plan. **05**
- (b)** Draw two point perspective drawing for the composition shown in figure no.3. (select most effective position of picture plane and height and distance of station point) **09**
- Q.5 (a)** Define term 'Town planning'. Explain aims and objectives of town planning. **07**
- (b)** Write descriptive and detailed note on : Origin and growth of towns **07**
- OR
- Q.5 (a)** Why are surveys carried out before town planning? What are the methods adopted for collection of data in surveys? **04**
- (b)** Discuss zoning with reference to its objectives, principles, types and advantages. **05**
- (c)** Explain need of planning of town centers in town planning. State briefly about 'business centers' & their sub groups. **05**


