

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC Semester: 1

Civil Engineering

Subject Name Building And Town Planning

Sr.No	Course contents
(A)	BUILDING PLANNING 1 Study of general principles of Planning and Architecture. 2 Typical Building Byelaws as per National Building Code and General Development Control Regulation. 3 Planning of residential buildings, Public buildings and Multi-storied structure. 4 Planning of Earthquake resistant buildings considering symmetry, simplicity, continuity, staircase, water tank etc. 5 Preparing Working Drawings of Residential Buildings. Various types, Scale selection, Material description. 6 Elements of Perspective Drawing-basic terms, One point and Two point Perspective.
(B)	TOWN PLANNING 1 History, Ancient Planning in India, Origin and Growth of towns, Satellite Town, Ribbon development 2 Civic surveys: Purpose, Types, Data required, Presentation. 3 Elements of City Planning, Circulation, Zoning and land use, Housing, Landscape pattern, Master plan, Town Center, Civic centers, Shopping Center, Town Planning Schemes, CBD. 4 Elements of Neighborhood. 5 Slum: definition, Slum improvements.

Term Work:

(A) Four A₁ Size Drawing sheet:

- (1) Residential Planning: Two storied Building: Plans, elevation, section, lay-out plan, key plan, site plan, area table, schedule of opening. Scale- 1:100.
- (2) Public Building: Ground Floor plan, typical floor plan, elevation, section, lay-out plan, key plan, site plan, area table, schedule of opening.
- (3) Working Drawing: sheet should accommodate min. six types with sectional details. (Furniture plan, Drainage lay out, Toilet Detail, Wood work detail, Kitchen detail, Electrical plan etc)
- (4) Perspective Drawing: Two point perspective of sheet -1 planning.

(B) Assignments:

- (1) Assignment -1: Principles of Planning & Architecture
- (2) Assignment -2: Building Bye laws
- (3) Assignment -3: Town Planning

Field Visit: Field visits based on course content are suggested.

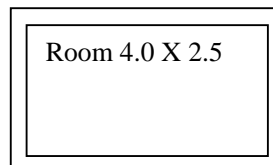
Reference Books:

1. Building drawing by M.G.Shah, C.M. Kale and S.Y.Patki, Tata McGraw Hill, New Delhi
2. Building planning, designing and scheduling by Gurcharan Singh, Standard Book House. New Delhi
3. Planning and designing building by Y.S. Sane, Allies Book Stall.
4. Town Planning by G.K.Hiraskar, Dhanpatrai & Sons Delhi.
5. National Building Code-2005 , New Delhi.
6. Town Planning by S.C. Rangwala, Charotar Publishing House, Anand.
7. General Development Control Regulations published by AUDA and GICEA

GUJARAT TECHNOLOGICAL UNIVERSITY**PDDC - SEMESTER-I • EXAMINATION – SUMMER 2013****Subject Code: X10601****Date: 07-06-2013****Subject Name: Building and Town Planning****Time: 02.30 pm - 05.30 pm****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) The plot for the proposed construction residential duplex has a following details **14**
: Plot area = 300 sqmtr, FSI = 1.1, Front margin 3.2 mtr Draw the plan of GF & F.F. With schedule of opening and area table
- Q.2** (a) Draw the section of plan of above residential duplex with all dimension **07**
(b) What is a principle of planning, enlist the principle and explain any two. **07**
- Q.3** (a) What is a Slum and how we can develop the slum. **07**
(b) What is FSI and which are the part or unit shall not be considered in counting the FSI. **07**
- Q.4** (a) What are the point to be considered for planning a Earthquake resistance building. **07**
(b) Describe the civic centre **07**
- Q.5** (a) Why the survey is required for Town planning? **07**
(b) Explain the Master plan with example **07**
- Q.6** (a) Draw the two point perspective of following figure assume data if required. **07**

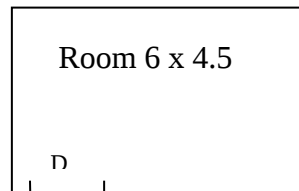


- (b) Write short note on “ Satellite Town” **07**
- Q.7** (a) Explain in detail “ Neighborhood planning”. **07**
(b) Differentiate between 1) Zoning and Reservation, 2) Row house and flats. **07**

GUJARAT TECHNOLOGICAL UNIVERSITY**PDDC- Ist SEMESTER-EXAMINATION – DEC-2012****Subject code: X 10601****Date: 23-01-2013****Subject Name: Building and Town Planning****Time: 10.30 am – 01.30 pm****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Each question carry equal marks (14 marks)

- Q.1** (a) The plot for the proposed construction of residential building has the following details:-
- Plot area = 200sqmt , FSI = 0.90
 - Front margin = 3.0mt
 - Side and Rear Margin = 1.2 & 1.5mt
- Draw plan of GF and FF, Elevation, Schedule of opening.
- Q.2** (a) Draw the section of plan drawn in the above question with all the information i.e. show all dimensions and material information.
- (b) What are the different Principles of planning explain in detail any three.
- Q.3** (a) Explain the causes of slum and explain the improvement methods of slum.
- (b) Define the term : a) Built Up Area b) F.S.I. c) Porch d) Mezzanine floor
- (c) What are the different types of Building
- Q.4** (a) Draw the two point perspective of following figure assume all other information if required



door size 1.5 X 2.1

- (b) Write short note on “Earthquake Resisting building”.
- Q.5** (a) Describe Neighborhood Planning.
- (b) Explain the necessity of town planning.
- (c) Describe the civic survey
- Q.6** (a) Discuss with sketch Ribbon development and satellite town.
- (b) Write detailed note on ancient town planning in India.
- Q.7** (a) Explain the term Zoning. Why it is required?
- (b) Write detail note on “CBD”
- (c) Explain “Origin and growth of town.”

GUJARAT TECHNOLOGICAL UNIVERSITY**PDDC SEM-I Examination-Dec-2011****Subject code: X10601****Date: 21/12/2011****Subject Name: Building and Town Planning****Time: 10.30 am -1.30 pm****Total marks: 70****Instructions:**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

Q.1 A plot of 270 Sq.m. is given,. It is required to plan a residential building in the plot . The necessary units included are (1) Drawing hall (2) Kitchen and dinning (3) Two Bed Rooms (iv)Puja Room (v) Store (vi) Toilet . The planning should be done only in ground floor. But stair and stair cabin should be planned to go on terrace. The FSI considered should be 70 % Draw only plan . Also shaw position of north line . **14**

Q.2 (a) Enlist Basic principles of town planning and describe (i) Furniture requirement (ii) Roominess (iii) Prospect **07**

(b) Explain (i) Cul- De-sac (ii) Neighborhood center **07**

OR

(b) Explain the Bye laws for (i) Margin (ii) FAR **07**

Q.3 (a) Explain the necessity of town planning **07**

(b) Describe the Zoning and its importance in town planning **07**

OR

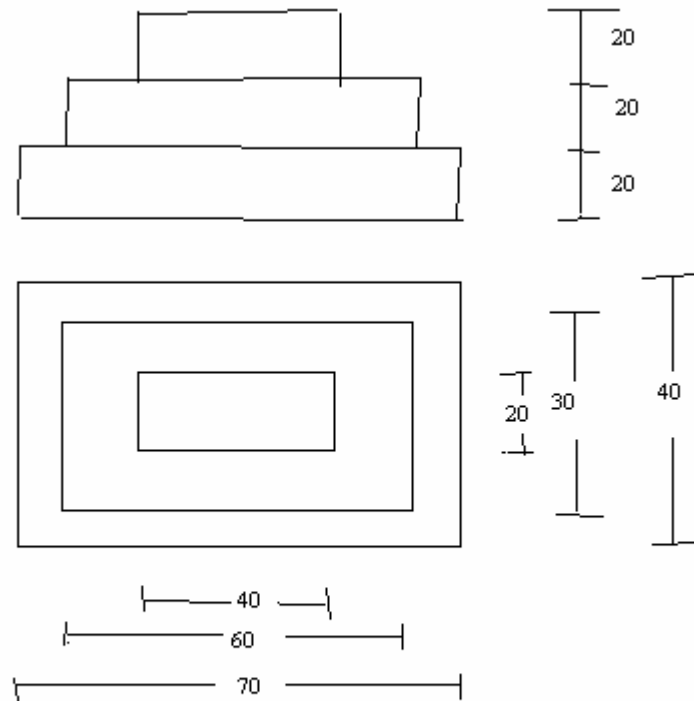
Q.3 Plan a school for the following requirement (i) Principal office (ii) Office room (iii) Teachers common room (iii) Waiting room and porch (iv) 12 class Rooms (for 60 students) (v) Water Room (vi) Library (vii) 1 science laboratory (viii) 1 computer room Draw only plan of the school **14**

Q.4 (a) Draw Suitable Section of the plan given in Q.1 **10**

(b) Describe selection of site for Town **04**

OR

Q.4 (a) Draw the perspective view of the object given in following figure **12**



ALL DIMENSIONS ARE IN
CENTIMETER

- Q.4 (b)** Enlist the different types of road pattern in the town **02**
- Q.5 (a)** Explain need and use of master plan of the town **07**
- (b)** Explain the (i) Layout plan (ii) Key plan (iii) Foundation plan **07**
- OR**
- Q.5 (a)** Explain low cost housing projects **07**
- (b)** Describe Civic Survey **07**

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC Sem-I June-July Examination 2011

Subject code: X10601

Subject Name: Building and Town Planning

Date: 23/06/11

Total Marks: 70

Time: 10:30am to 1:30pm

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Detail dimensioning and accuracy in drawings are essential.
5. Attempt Q1 & Q2a in Drawing sheet.

- Q.1** Design and draw plan & sectional elevations of a residential building from following data. **14**
1 Area of plot 250 sq m. 2 Permissible built up area is 40% 3 two bedrooms (one master bedroom), kitchen cm dinning room, drawing room, and other necessary data assume.
- Q.2 (a)** Draw perspective of steps of two trades, having one corner in the picture plane .Kept eye level 6m. **07**
(b) What are the principles of planning the building? Discuss any two briefly. **07**
OR
(b) List the architectural compositions & Discuss any two briefly. **07**
- Q.3 (a)** What are the principles of Town planning? List & discuss any two. **07**
(b) What is the growth of town –planning? Discuss various type. **07**
OR
- Q.3 (a)** List types of survey require for town & discuss the civic survey. **07**
(b) What is meant by slum? Discuss the slum clearance programmed briefly. **07**
- Q.4 (a)** Enlist the aspect of Zoning & discuss the use of zoning. **07**
(b) What is meant by neighborhoods-?Discus the feature briefly. **07**
OR
- Q.4 (a)** Explain in sketch **06**
1 Cul de sac 2 Key plan 3 block plan
(b) What is a town centre? What are its different form? **08**
- Q.5 (a)** Discuss the Housing position in old city and problems in other elements of city. What is T.P.S? **07**
(b) What is Master plan? Discuss the salient features of Gandhinagar master plan. **07**
OR
- Q.5 (a)** Differentiate between the 1 Zoning & reservations **07**
2 Row of housing & flats
(b) List the Types of perspectives & discuss any one. **07**

GUJARAT TECHNOLOGICAL UNIVERSITY**P.D.D.C. Sem- I Regular / Remedial Examination January. 2011****Subject code: X10601****Subject Name: Building & Town Planning****Date: 05 / 01 /2011****Time: 10.30 am – 01.30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** The plot for the proposed construction of residential building has the following details:- **14**
- Plot area150 m²
 - FSI1.2
 - Margin :-
 - i) Front margin ...1.2 mt
 - ii) Rear margin ...1.0 mt
 - iii) Side margin0.5 mt on both the side
 - Show staircase details
 - Plan - GF and FF observing bye-laws of NBC
 - Schedule of openings.
- Q.2 (a)** Draw elevation of the plan drawn in Q.1. **07**
- (b)** Draw section of the plan drawn in Q.1., such that maximum details can be obtained **07**

OR

- (b)** Draw two point perspective of following steps having following details:- **07**



- Riser is 0.15 cm
- Width of step is 90 cm
- Tread is 30 cm

- Q.3 (a)** Explain term Zoning. Why is it required? Discuss Density Zoning. **07**
- (b)** Discuss the highlighting points of any 2 planned cities of India. **07**

OR

- Q.3 (a)** Write detailed note on Master Plan. Also list various disadvantages of Ribbon Development. **07**
- (b)** Classify and discuss various types of Residential buildings. **07**

- Q.4 (a)** Define slum. What are negative aspects of Slum? What are slum improvements methods? **07**
- (b)** Discuss with sketch Satellite Town **07**

OR

- Q.4 (a)** Discuss various advantages of Town Planning and also negative aspects of unplanned city. List various well planned town of ancient India. **07**

(b) What points would you consider for locating the following elements in the town:- **07**

- Shopping centres
- Industrial Zone
- Airport
- Civic Centres
- Railway station

Q.5 (a) Draw furniture plan of study room having dimensions of 2.5 *3 mt **07**

(b) Discuss the points you would consider for the design of staircase and water tank for planning Earthquake resistant building. **07**

OR

Q.5 (a) Discuss principles of Architecture. **07**

(b) Enlist all principles of planning and explain any 4 of them. **07**

GUJARAT TECHNOLOGICAL UNIVERSITY

P.D.D.C. Sem- I Remedial Examination March / April 2010

Subject code: X10601

Subject name: Building & Town Planning

Date: 01 / 04 / 2010

Time: 12.00 noon – 03.00 pm

Total marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) The plot for the proposed construction of residential building has the following details:- **14**

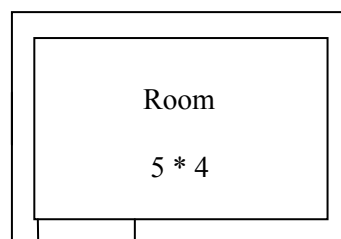
- Plot area175 m²
- Permissible built up area66% of plot area on GF & FF respectively.
- FSI1
- Margin :-
 - i) Front margin ...3 mt
 - ii) Rear margin ...1.2 mt
 - iii) Side margin1.5 mt on any side

With the help of given data, furnish the following tables/drawings:-

- Plan of GF and FF observing bye-laws of NBC
- Elevation
- Schedule of openings

Q.2 (a) Draw section of only GF plan drawn in the above question such that maximum details can be obtained. Show all dimensions and material informations. **07**

(b) Draw two point perspective of the room shown below. Other details are as below:- **07**



D1

Door D1 1.2*2.1 mt

OR

(b) Draw Furniture arrangement of Drawing and Dining room of plan of Q.1. Show all the details with dimensions. **07**

Q.3 (a) Explain various aspects of Zoning **07**

(b) Discuss with sketch Ribbon development and Satellite town. **07**

OR

Q.3 (a) Define Slum. Discuss various steps that can be undertaken for the improvements of Slums. **07**

(b) List various types of Surveys undertaken for TPS. Also discuss in detail how informations/data is collected for various surveys. **07**

- Q.4 (a)** List and explain various agencies responsible for Housing. **07**
(b) Write detailed note on ancient town planning in India. **07**
- OR**
- Q.4 (a)** List various types of residential building s in detail. List advantages and disadvantages of Skyscrapers. **07**
(b) Explain the following in detail:- **07**
- Town Center
 - FSI
- Q.5 (a)** Explain Unity, Contrast and Balance of Principles of Architecture and Privacy & Grouping of Principles of Planning. **07**
(b) Explain Set back with sketch. **07**
- OR**
- Q.5 (a)** Explain in detail term- Earthquake Resisting buildings? Which shapes or symmetry of building is preferred as earthquake resistant building-explain. **07**
(b) Explain Neighborhood planning in detail. **07**

GUJARAT TECHNOLOGICAL UNIVERSITY**P.D.D.C. Sem- I (Civil Engg.) Examination January 2010****Subject code: X10601****Subject Name: Building and Town Planning****Date: 04 / 01 / 2010****Time: 11.00 am – 2.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions regarding dimension etc wherever necessary.
3. Figures to the right indicate full marks.
4. Attempt theory part in answer sheet and drawing part in drawing sheet

- Q.1** Design and Draw only plan of the residential building on the ground floor for the plot size of 250 sq. M. and provide (i) Drawing Room (ii) 2 Bed room (iii) Kitchen and dinning space (iv) Store room (v) Toilet (v) Stair case to go on First floor also provide the Stair cabin on the First floor . consider the FSI to be 65% **14**
- Q.2** (a) What is the need of survey in the town planning describe the different survey required for town planning? **07**
- (b) What are the different basic principles of the building planning and discuss any two of them in detail **07**
- OR**
- (b) What do you mean by bye laws? Describe it. **07**
- Q.3** (a) Describe Town planning in ancient India **05**
- (b) What is Zoning ? Why it is required ? **05**
- (c) Describe Slum clearance **04**
- OR**
- Q.3** (a) Describe Neighbor hood planning **05**
- (b) Describe importance of the master plan for a city **05**
- (c) Describe “ Town Center “ **04**
- Q.4** (a) Draw the perspective of the building you have drawn in Question 1 **09**
- (b) Explain the need of the Educational Building and necessary criteria's for it **05**
- OR**
- Q.4** (a) Draw the perspective of the Figure given Below in FIG 1 **09**
- (b) Describe the important measure you will take at the time of planning to make the building Earthquake proof. **05**
- Q.5** Draw Suitable Section of the Building Given in Q.1 **14**
- OR**
- Q.5** Design and Draw a plan of the Hospital Building having the following units required (i) Waiting Room (ii) Doctors Consulting Room 2unit (iii) Operation Theatre (iv) 2 Special Room of 2 Bed with attached toilet each (v) 1 General ward of 6 Bed Capacity (vi) Laboratory (vii) x-ray Room (viii) pantry room for patients (ix) common Toilet **14**

