

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 3130609****Date: 3/12/2019****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.

- Q.1** (a) Explain principle of Architecture planning. **03**
(b) Explain necessity of national building code. **04**
(c) Draw Plan of residential building in a plot area of 400 m² for a family of 4 Persons from the following requirements of Kitchen, Drawing room, Bed room, Study room, varndah . Also show the position of furniture in Drawing room Kitchen, Bed room in plan. **07**

- Q.2** (a) Give the fundamentals of BIM technology. **03**
(b) Explain following terms (1) FSI (2) Built up area (3) Key plan (4) Mezzanine floor. **04**
(c) Describe advantages and disadvantages of the RERA. **07**

OR

- (c) Write short note on "Software for ODPS". **07**
Q.3 (a) Draw Water Supply line diagram for a residential building .Assume necessary Data. **03**
(b) Which factors will you consider for selecting site for a building? **04**
(c) Discuss software application in building planning and drawing for 2D model. **07**

OR

- Q.3** (a) Explain perspective view and its importance. **03**
(b) Give difference between one point perspective and two point perspective. **04**
(c) Discuss use of GIS tools for Town Planning. **07**

- Q.4** (a) Define term "Town Planning." **03**
(b) Write short note on: Indus valley civilization (3000 B.C.) **04**
(c) Which surveys are conducted to prepare proposal of town planning? explain each. **07**

OR

- Q.4** (a) What do you mean by 'Land uses ' for town planning? **03**
(b) Write the main objects of urban roads. **04**
(c) What do you mean by Zoning? And write the advantages of Zoning. **07**

- Q.5** (a) What are the principal of Neighborhood Planning. **03**

	(b) Discuss the important features of master plan.	04
	(c) Discuss the various methods of slum clearance.	07
	OR	
Q.5	(a) What do you mean by "civic surveys"?	03
	(b) Write short note on : "Satellite town".	04
	(c) Discuss in detail characteristics of smart city.	07

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GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-III (NEW) EXAMINATION – WINTER 2020****Subject Code:3130609****Date:05/03/2021****Subject Name: Building and Town Planning****Time:10:30 AM TO 12:30 PM****Total Marks:56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		Marks
Q.1	(a) Write a short note on BIM	03
	(b) Define orientation and enlist factors affecting orientation, explain one.	04
	(c) Draw ground floor and first floor line plan for two storied residential building on plot of 360 m ² area for a family of 8 persons. Use principle of building planning and building bye laws. Assume north direction and other necessary data	07
Q.2	(a) Define building bye-laws and write down its objectives	03
	(b) Explain following terms. i) Set back ii) Light plan iii) FSI iv) floor area	04
	(c) Explain in detail the principle of planning	07
Q.3	(a) Write a short note on ODPS.	03
	(b) Draw and explain: Key plan, site plan and layout plan	04
	(c) State requirements of hospital building and draw line plan of it.	07
Q.4	(a) Write down the differences between one-point perspective and two-point perspective	03
	(b) Enlist the general principle in construction of earthquake resistance building and explain any one.	04
	(c) Assuming suitable position and height of the observer and other essential data draw a perspective view of a room 6 M X 4.5 M with the following details: i) Plinth height = 1.0 m ii) Wall thickness = 0.3 m iii) Window sill level = 0.9 m iv) Long wall window size = 2 m X 1.2 m v) Door = 1.2 m. X 2.1 m vi) Lintel thickness = 0.15 m vii) Clear floor height = 3.3 m viii) Slab thickness = 0.15 m ix) Parapet height = 0.9 m	07
Q.5	(a) Write down the necessity of civic survey.	03
	(b) Explain the use of GIS tools in town planning.	04
	(c) Explain growth of town according to origin in natural growth category with advantages and disadvantages.	07

Q.6	(a)	Write note on Indus valley civilization	03
	(b)	Explain growth of town according to direction.	04
	(c)	Write down the principles of town planning in detail.	07
Q.7	(a)	Define zoning and enlist principle of zoning.	03
	(b)	Define masterplan and its objectives.	04
	(c)	Discuss in detail the aspects of zoning.	07
Q.8	(a)	Explain CBD and its characteristics.	03
	(b)	Explain principle of neighborhood planning.	04
	(c)	Explain the causes of slum. Describe the methods of slum clearance.	07

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) EXAMINATION – WINTER 2021****Subject Code:3130609****Date:23-02-2022****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
Q.1	(a) Define Building and Explain Any Two Types of Building as per NBC Classification.	03
	(b) Explain objectives and scope of building bye -laws.	04
	(c) Draw ground floor plan of detached house on a 17 m × 20 m plot area for a family of Six persons as per building bye laws and principles of planning and architecture. Assume suitable direction of East and front road. And also assume other necessary data which required for planning purpose. Also mention the schedule of opening.	07
Q.2	(a) Define : (1) FSI (2) Set-back (3) Building Line	03
	(b) What is BIM? Discuss the fundamentals of BIM technology.	04
	(c) List out the principles of building planning and explain in detail.	07
	OR	
	(c) List out the Principles of Architectural Composition and explain Character, Balance & symmetry and Unity in Detail.	07
Q.3	(a) Discuss classification of building based on structural design.	03
	(b) Which factors will you consider for selecting site for a building?	04
	(c) Prepare line diagram of a Bank. Take size of units, according to general requirements of public building.	07
	OR	
Q.3	(a) Define any three: (1) Station Point (2) Cone of vision (3) Vanishing point (4) Picture Plane	03
	(b) Differentiate between one point perspective and two point perspective with a sketch.	04
	(c) Discuss software application in building planning and building drawing for 2D model generation.	07
Q.4	(a) What do you mean by 'Land uses' for town planning?	03
	(b) Give minimum size and other requirements of different types of rooms.	04
	(c) Discuss the various methods of slum clearance.	07
	OR	
Q.4	(a) Briefly explain the town planning in the period of Indus valley civilization.	03
	(b) Write short note on: RERA	04
	(c) Discuss four basic pillars of a Smart City.	07
Q.5	(a) Write short note on CBD (Central business district).	03
	(b) Discuss various surveys conducted for town planning scheme.	04

- (c) Discuss Ribbon development in brief. Also write advantages and disadvantages of it. **07**

OR

- Q.5** (a) Enlist classification of Growth of towns. **03**
(b) Write a note on features of Neighborhood unit. **04**
(c) Explain aspects of zoning in brief. **07**

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- III EXAMINATION – SUMMER 2020****Subject Code: 3130609****Date: 02/11/2020****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.

MARKS

- | | | | |
|------------|-----|---|-----------|
| Q.1 | (a) | Explain principle of planning. | 03 |
| | (b) | Explain objective and scope of building bye -laws. | 04 |
| | (c) | Draw ground floor plan of residential building on a 15 m × 18 m plot area for a family of four persons as per building bye laws and principles of Planning and architecture. Assume suitable direction of North and front Road. And other necessary data which required For planning Purpose. Also mention the schedule of opening. | 07 |
| Q.2 | (a) | What is BIM? Discuss its components. | 03 |
| | (b) | Explain in brief (any four) : Set – back, Light plane, FSI, Mezzanine Floor and, Built up Area. | 04 |
| | (c) | Write short note on “Software for ODPS”. | 07 |
| | | OR | |
| | (c) | Explain the factors considered for planning earthquake resistant buildings. | 07 |
| Q.3 | (a) | What are the basic requirements for residential building planning? | 03 |
| | (b) | Explain with sketches, house drainage system of a building. | 04 |
| | (c) | Discuss software application in building planning and building drawing for 3D model generation. | 07 |
| | | OR | |
| Q.3 | (a) | Explain perspective view and its importance. | 03 |
| | (b) | Explain the terms (any four): Picture plane, Centre of vision, Vanishing point, ground plane, angle of vision, Horizontal plane. | 04 |
| | (c) | Prepare ground floor plan of primary school for 1 to 12 standards and 40 students in each class.(assume necessary data required). | 07 |
| Q.4 | (a) | Discuss brief history of town planning. | 03 |
| | (b) | Write short note on: Pre- independent period or British period (Till 1947). | 04 |
| | (c) | Discuss growth of towns according to origin and direction. | 07 |
| | | OR | |
| Q.4 | (a) | What do you mean by: Civic Survey”. | 03 |
| | (b) | Explain classification of land use. | 04 |
| | (c) | Discuss the classification of urban roads. | 07 |
| Q.5 | (a) | Discuss importance of zoning. | 03 |
| | (b) | What is the importance of neighborhood planning? | 04 |
| | (c) | Discuss objects and necessity of master plan. | 07 |
| | | OR | |
| Q.5 | (a) | What is CBD (Central Business District). | 03 |
| | (b) | What are the main reasons for the formation of slums? | 04 |
| | (c) | Write short note on: (i) Open plot scheme for slum (ii) Difficulties in slum clearance. | 07 |

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) EXAMINATION – SUMMER 2021****Subject Code:3130609****Date:06/10/2021****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

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|------------|---|-----------|
| Q.1 | (a) Enlist the elements of architecture composition and explain any one in detail. | 03 |
| | (b) Classify the buildings based on the structural design. | 04 |
| | (c) Draw a plan of a two storied residential building on a plot size 16 m x 19 m for a family of 6 persons belongs to MIG, take FSI 1.5, 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. | 07 |
| OR | | |
| Q.2 | (a) Enlist the components of building bylaws. | 03 |
| | (b) Explain key features of RERA. | 04 |
| | (c) Explain with neat sketch water supply system in residential building. | 07 |
| | (c) Explain with neat sketch house drainage system in residential building. | 07 |
| OR | | |
| Q.3 | (a) Define (i) vanishing point (ii) picture plane (iii) isometric view | 03 |
| | (b) Explain satellite town. | 04 |
| | (c) Discuss software application in building planning and building drawing of 2D model generation. | 07 |
| OR | | |
| Q.3 | (a) Enlist the type of surveys conducted for planning. | 03 |
| | (b) Explain two point perspectives with sketch. | 04 |
| | (c) Discuss the general features of earth quake resistant buildings. | 07 |
| OR | | |
| Q.4 | (a) Define (i) Master plan (ii) Margin (iii) Mezzanine floor. | 03 |
| | (b) Differentiate between NBC and local building byelaws. | 04 |
| | (c) Explain ODPS software in detail. | 07 |
| OR | | |
| Q.4 | (a) List out the drawback of ribbon development in planning. | 03 |
| | (b) Explain the necessity of civic survey for town planning purpose. | 04 |
| | (c) Explain Growth of town in detail. | 07 |
| Q.5 | (a) Enlist the various types 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 (i) Neighborhood unit (ii) Zoning (iii) CBD. | 03 |
| | (b) Explain multiple Nuclei model. | 04 |
| | (c) Discuss the various methods of slum clearance. | 07 |

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III (NEW) EXAMINATION – SUMMER 2022****Subject Code:3130609****Date:15-07-2022****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.

		Marks
Q.1	(a) Define building bye-laws. What are the objectives of building bye-laws?	03
	(b) Enlist various principles of planning of a building. Explain the importance of aspect and prospect for residential buildings.	04
	(c) Draw ground floor plan of a single storied residential building on a 14 m X 20 m plot area for a family of four persons as per building bye laws and principles of planning and architecture. Also provide an inbuilt staircase which permits access to first floor. Assume suitable north direction and front road.	07
Q.2	(a) Explain usefulness and importance of National Building Code (NBC).	03
	(b) Explain bye-laws of lighting and ventilation.	04
	(c) Give an overview of RERA and explain its importance.	07
	OR	
	(c) What is ODPS? Explain its working.	07
Q.3	(a) Draw Water Supply line diagram for a residential building to supply water from water main to the various plumbing units of house. Assume necessary Data.	03
	(b) Enlist and explain the factors considered in planning of school building.	04
	(c) What is meant by the term zoning? Explain the objectives and advantages of zoning.	07
	OR	
Q.3	(a) Draw drainage system plan to dispose both soil and waste water for a residential building. Assume necessary Data.	03
	(b) Enlist and explain the factors considered in planning of hospital building.	04
	(c) What is meant by the term slum clearance? Explain the methods by which slum clearance programmes can be made effective.	07
Q.4	(a) What does perspective drawing mean? Why is the perspective drawing required?	03
	(b) Explain the terms: Station Point, Vanishing point, Picture plane, Horizontal plane	04
	(c) Explain how an architectural composition unity is achieved?	07
	OR	
Q.4	(a) Explain the basic principle of perspective projection.	03
	(b) Explain the classification of perspective views based on the number of vanishing points.	04
	(c) Explain symmetrical and unsymmetrical balance architectural composition	07
Q.5	(a) Enlist and explain various elements of building drawing.	03
	(b) Draw the neat sketch of site plan and layout plan and differentiate them.	04

- (c) Discuss usefulness of software applications in planning and drawing for 2D model of a building. **07**

OR

- Q.5** (a) What is difference between line drawing and detailed drawing? **03**
(b) Explain following terms (1) Plinth Area (2) Floor area (3) FAR (4) FSI **04**
(c) Discuss usefulness of software applications in planning and drawing for 3D model of a building. **07**
