

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering - SEMESTER - IV EXAMINATION - WINTER 2025

Subject Code: N114AV01

Date: 03-12-2025

Subject Name: Basics of Planning - Software Applications

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 the term Building Bye-laws.	03
(b) Which are the principles of architectural planning.	04
(c) Explain in detail the Principles of Building Planning with suitable examples.	07
Q.2 (a) Define RERA. What is its main purpose?	03
(b) Explain the need and importance of the National Building Code in India.	04
(c) What is AutoCAD? Explain its main features and advantages in preparing engineering drawings.	07
OR	
(c) Explain what is meant by layers, line types, and colors in AutoCAD. Why are they important in making good drawings?	07
Q.3 (a) Enlist various software applications useful to prepare drawings and layouts of building.	03
(b) Define a double line plan and what is its purpose?	04
(c) Discuss the importance of coordinate system and drafting settings in preparing accurate 2D drawings.	07
OR	
(a) Explain how effectively we shall use the AutoCAD in preparation of structural drawings.	03
(b) What is the importance of setting units and limits before starting a drawing?	04
(c) Explain the process of preparing a Double Line 2D Plan of a Residential Building in AutoCAD.	07
Q.4 (a) Write the function of the HATCH command in AutoCAD.	03
(b) Explain the “TEXT” command in detail. what are the ways available to add text in AutoCAD.	04
(c) What care you will take while preparing the Furniture layout?	07

OR

- (a)** Explain the use and importance of a centerline plan in building construction. **03**
- (b)** What are the main components shown in a working plan? Explain briefly. **04**
- (c)** Draw a simple single-line plan of a residential bungalow with 25 m × 40 m in size. The plan should include 1 Master Bedroom, 2 Bedrooms, Kitchen, Hall, and a Common Washroom. **07**

- Q.5**
- (a)** What is a section view in building drawing? **03**
 - (b)** Describe the procedure for creating RHS, LHS, and back side elevations using AutoCAD. **04**
 - (c)** Draw one section view for the plan prepared above in Ques. 4 (C) (OR). **07**

OR

- (a)** What are the main symbols used in plumbing plans? **03**
- (b)** Write short notes on Building Information Modelling (BIM) and its advantages. **04**
- (c)** Draw a single-line plan of a commercial office building of size 70' × 50' showing Reception, Manager's Cabin, Work Area, Conference Room, Pantry, and Toilets. **07**
