PRN:		Course Code:	U13PC302

Second Year **B. Tech** End Semester Examination Winter 2024

Building Design and Drawing 000124

Day and Date: Mon 25 NOV 2024 Max Marks: **50**

Time : 10:30AM To 12:30PM Duration: **02** hrs

Instructions:

1. All questions are compulsory.
2. Assume suitable data wherever necessary and mention it clearly.

			Marks	Bloom's Level	CO
Q.1		**Attempt the following Question.**			
	a)	Prepare a plan for a engineers residential building using the following details, Plot Dimension 20m X 30m (Facing East) (Assume suitable data if necessary): Scale: 1:100 i. Living Room ii. Dining Area with Kitchen iii. Master Bedroom iv. Bathroom v. Engineers' office	10	1	1
Q.2		**Attempt the following Question.**			
	a)	Describe the significance of a sun diagram in building planning, also Discuss the impact of sun diagram on building planning in India	10	2	1
		OR			
	b)	Describe the principles of building planning in details with supporting diagram.	10	3	2
Q.3		**Attempt the following Question.**			
	a)	i. Describe the types of wiring with details. ii. Discuss the fire protection precautions that should be taken in building design.	10	1	3
		OR			
	b)	Discuss the various type of plumbing system with diagram.	10	2	3
Q.4		**Attempt the following Question.**			
	a)	i. Describe various types of ventilation systems used in buildings. ii. Explain the criteria should be considered when selecting a ventilation system for a specific section of a building	10	1	4
		OR			
	b)	Explain the general concept and principles of thermal insulation. Also discuss the materials and methods used for thermal insulation, and how to compute heat loss and heat gain in buildings.	10	3	4
Q.5		**Attempt the following Question.**			
	a)	Draw a single line for the Hospital Building (not to scale) with details of units and their dimensions	10	3	5
		OR			
	b)	Explain the factors considered for Secondary and higher education School construction. Draw a single line plane for Secondary and higher education School with component (not to scale)	10	3	5

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