Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.ARCH - SEMESTER–V EXAMINATION – SUMMER 2022

Subject Code:2X55002 **Date:03-06-2022**

Subject Name:Building Construction Drawing-V

Time:02:30 PM TO 05:30 PM **Total Marks: 40**

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.**
5. **Draw neat and clean sketches wherever required.**

Q-1 Answer the following 20

1. Difference between Slab & Vault building component.
2. Explain Pile footing with detail.
3. Explain lacing and battening with detail sketch.
4. Explain Cantilever footing and Raft footing with sketch.
5. Write short note on RCC Elements and Precast Elements

Q-2 Explain the following with sketches (Any 2) 10

1. Explain retaining wall with detail sketch. Write safety factor against overturning of Retaining wall. Enlist different types of stresses working on it.
2. Mention advantages and disadvantages of structural steel. Also show different rolled steel sections used in building with neat sketches.
3. Explain with sketches column to column connection, column to foundation connections.

Q-3 Write short notes (Any 2) 10

1. Describe schematic plan & section of escalator and identify various components of the escalator.
2. What is meaning of curing? Why is it essential to cure concrete? What are the various methods commonly adopted in curing?
3. Explain the functioning and concept of HVAC system for Hospital Building.

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