

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BARCH - SEMESTER- V EXAMINATION – WINTER 2021

Subject Code: 2X55002

Date:23/12/2021

Subject Name:Building Construction Drawing-V

Time:10:30 AM TO 01:30 PM

Total Marks:40

Instructions:

- 1. Q.1 is compulsory. Attempt any two questions from Q.2 to Q.4.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Simple and non-programmable scientific calculators are allowed.**

- Q.1 (a)** Detail the sketch of a retaining wall with its components.. Write criteria for safety factor against overturning and sliding of Retaining wall. **04**
- (b)** Write short note on RCC Elements and Precast Elements **04**
- (c)** Explain Cantilever footing and Raft footing with sketch. **04**
- Q.2 (a)** Difference between Slab & Vault building component. **04**
- (b)** Draw a typical steel column footing detail supporting wide flange steel column with a reinforced concrete pier column. **04**
- (c)** Mention advantages and disadvantages of structural steel. Also show different rolled steel sections used in building with neat sketches. **06**
- Q.3 (a)** Explain Pile footing with detail. **04**
- (b)** Explain with sketch Beam to Beam connection for web cleat angle framed connection. **04**
- (c)** Explain lacing and battening with detail sketch. **06**
- Q.4 (a)** Describe schematic plan & section of escalator and identify various components of the escalator. **04**
- (b)** Explain with sketch Beam to Column connection for clip angle unstiffened connection. **04**
- (c)** Explain the functioning and concept of HVAC system for Hospital Building. **06**
