

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Arch - SEMESTER- V EXAMINATION – WINTER 2023

Subject Code:2X55002

Date:02-12-2023

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** Answer the following (Any three) **12**
1. RCC elements and PCC Elements
 2. Shallow and Deep foundations.
 3. Pile footing with detail.
 4. Advantages and Disadvantages of structural steel.
- Q.2**
- (a) Explain with sketch Beam to Column connection for framed connection. **04**
 - (b) Explain Cantilever footing and Raft footing with sketch **04**
 - (c) Explain retaining wall with detail sketch. Write safety factor against overturning of Retaining wall. **06**
- Q.3**
- (a) Explain with sketch Column to Foundation connections. **04**
 - (b) Give the importance of lacing and battening with its sketches. **04**
 - (c) Explain the functioning and concept of HVAC system for Hospital Building. **06**
- Q.4**
- (a) Draw and explain various components of a footing for steel column. **04**
 - (b) Enumerate types of Slabs according to its structural requirements in the building. **04**
 - (c) Describe schematic plan & section of escalator and identify various components of the escalator. **06**
