

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B ARCH - SEMESTER- VI - EXAMINATION – WINTER 2021**

**Subject Code: 2X65002**

**Date: 06/12/2021**

**Subject Name: Building Construction - VI**

**Time: 02:30 PM to 04:30 PM**

**Total Marks: 40**

**Instructions:**

- 1. Attempt any Four out of seven questions.**
- 2. Make suitable sketches wherever necessary.**
- 3. All questions carry equal marks.**

- Q.1** Suggest suitable type of structural system for an office building to be constructed having a height of 120m. Justify your suggestion with sketch and detail. **10**
- Q.2** Give a brief for different types of floor systems used in high rise structures with neat sketches. **10**
- Q.3** Which are the different lateral loads acting on high rise buildings. Explain the effect of any one load on a building. **10**
- Q.4** Classify stairs in high rise structure with sketches. Brief requirements of good staircase. **10**
- Q.5** (a) What are the materials used for skyscrapers in modern era of India. Describe with its purpose and use. **05**  
(b) Give the safety considerations for the construction of high rise buildings. **05**
- Q.6** (a) Which are the forms of vertical circulation used. Give importance of each to be used in multi-storey building. **05**  
(b) What are electrical services in high rise building. **05**
- Q.7** Choose proper HVAC system for commercial use in high rise building. How does it function in high rise building. **10**

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