

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III (NEW) EXAMINATION – SUMMER 2022****Subject Code:2130607****Date:22-07-2022****Subject Name:Building Construction****Time:02:30 PM TO 05:00 PM****Total Marks:70****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.

- Q.1** (a) What are the different types of building? **03**
 (b) Write a note on “Mat Foundation”. **04**
 (c) What are the various methods of sub-soil exploration? Explain any one. **07**

- Q.2** (a) Explain various properties of concrete. **03**
 (b) Enlist component of building. Draw a typical vertical cross section of a wall. **04**
 (c) What are the problems of foundations in Black cotton soils? What pre-cautions are taken during foundation construction in black cotton soils? **07**

OR

- (c) Write a short note on “Grillage Foundation”. **07**

- Q.3** (a) What you understand by “cavity wall”. **03**
 (b) Draw neat sketch of Jack arch floor and flat slab. **04**
 (c) What do you mean by masonry work? Write the difference between Brick masonry and stone masonry with sketch. **07**

OR

- Q.3** (a) Define the following term. (1) King Closer (2) Span (3) Ridge **03**
 (b) Differentiate English bond and Flemish bond with figure. **04**
 (c) Enlist types of stairs and discuss any two in detail. **07**

- Q.4** (a) Draw detail sketch of components of a floor. **03**
 (b) Differentiate between Fixed and Pivoted windows. **04**
 (c) Differentiate between Pre-cast and Cast-in-situ concrete construction. Write advantages and disadvantages of pre-cast construction. **07**

OR

- Q.4** (a) Write short note on types of lintels. **03**
 (b) Explain Lean-to-Roof. **04**
 (c) Explain factors that affecting the selection of size, shape, location and number Doors in building? **07**

- Q.5** (a) Explain causes of dampness in building. **03**
 (b) Differentiate between the following: **04**
 (1) Corner windows and Dormer window
 (2) Panelled Doors and Glazed Door
 (c) Write a short note on “Green Building”. **07**

OR

- Q.5** (a) Write various types of pointing. **03**
 (b) Explain Post-construction anti-termite treatment. **04**
 (c) Define Shoring. Explain the objects of Shoring. **07**
