

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV (OLD) EXAMINATION – WINTER 2018****Subject Code:140602****Date: 28/11/2018****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.

- Q.1** (a) What are the different components of a building? Describe in brief. **07**
(b) Describe the plate load test for determining safe bearing capacity of soil. What are its limitations? **07**
- Q.2** (a) What is meant by “Shallow foundation”? Explain the various types of shallow foundation. **07**
(b) Describe Flemish bond. What is the difference between single Flemish bond and double Flemish bond? Draw isometric view of it. **07**
- OR**
- (b) Define cavity wall. What are its advantages? Explain general features of a brick cavity wall. **07**
- Q.3** (a) What is the importance of water in concrete mix? Describe various properties and impurities of water. **07**
(b) Explain the points to be kept in mind, while locating doors and windows. **07**
- OR**
- Q.3** (a) Write the function of ventilators? How is it different from a window? Draw details of ventilator combined with a window. **07**
(b) How are the treads and risers proportioned? **07**
- Q.4** (a) Differentiate between: **07**
i. Helical stair and Spiral stair
ii. Dog-legged stair and Open-well stair.
(b) Discuss the various factors affecting the selection of flooring materials. **07**
- OR**
- Q.4** (a) State the various types of upper floors. Mention the situations where each type may be used. **07**
(b) Draw the plan and isometric view of building roof, Label and define the various parts. **07**
- Q.5** (a) Describe the various types of pointing with sketch. **07**
(b) What do you understand by scaffolding? What are the components of a scaffold? **07**
- OR**
- Q.5** (a) Write a short note on ‘Termites and their attack on building’. **07**
(b) Explain the methods of improving safe bearing capacity of soils. **07**
