

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III(New) • EXAMINATION – WINTER 2016

Subject Code:2130607

Date:11/01/2017

Subject Name:Building Construction

Time:10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	Short Questions	14
	1 Enlist various loads acting on a building.	
	2 Differentiate between disturbed & undisturbed soil sample.	
	3 Enlist various types of shallow foundation.	
	4 Explain the term stretcher with sketch.	
	5 What do you mean by workability of concrete ?	
	6 Enlist any five materials used for flooring.	
	7 Write the value of minimum width of stair for a residential building.	
	8 What do you mean by M₂₀ grade concrete ?	
	9 Define the given terms related with roof – A) Pitch of roof B) Ridge	
	10 What do you understand by hacking ?	
	11 Define the term shoring.	
	12 What do you mean by reverberation time ?	
	13 Enlist various methods of damp proofing.	
	14 What is the concept of green building ?	
Q.2	(a) Explain Dog-legged stair with sketch.	03
	(b) Describe R.C.C. Lintel with sketch.	04
	(c) What are the causes of failure of foundation ? What remedial measures would you adopt ?	07
	OR	
	(c) Explain Raft foundation with sketch. When do you adopt it ?	07
Q.3	(a) Draw a sketch of Cavity wall & give its purposes.	03
	(b) Describe briefly Plate load test with sketch.	04
	(c) Write the difference between Rubble masonry & Ashlar masonry.	07
	OR	
Q.3	(a) What are the purposes of Site exploration ?	03
	(b) Describe Bay window with sketch.	04
	(c) Write comparison of English bond with Flemish bond in detail.	07
Q.4	(a) Describe Spiral stair with sketch.	03
	(b) Explain briefly various operations in preparation of concrete at site.	04
	(c) Write detail comparison of Pitched roof & Flat roof.	07
	OR	
Q.4	(a) Explain in brief the essential requirements of a good floor.	03
	(b) Describe briefly Hollow Tiled Ribbed flooring with sketch.	04
	(c) What do you understand by scaffolding ? Describe Single scaffolding with sketch.	07
Q.5	(a) Draw sketch of - A) Dormer window B) Gable window	03
	(b) Explain how post construction anti-termite treatment of a building is carried out.	04

- (c) Draw a sketch showing Single flight stair with various components & define the various components of stair. **07**

OR

- Q.5** (a) Write the benefits of green building. **03**
(b) Describe Battened & Ledged door with sketch. **04**
(c) Enlist different materials used for thermal insulation & Explain how do you achieve thermal insulation of roofs ? **07**
