

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV • EXAMINATION – SUMMER • 2014****Subject Code: 140602****Date: 20-06-2014****Subject Name: Building Construction****Time: 10:30 am - 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.

- Q.1** (a) Describe the causes of failures of foundation and their preventive measures. **07**  
 (b) Explain in brief **07**  
 (1) Sub-surface investigation (2) Methods of improving bearing capacity
- Q.2** (a) Describe the following with figure in relation to masonry **07**  
 (1) King closer (2) Queen closer (3) Stretcher (4) Header (5) Copping (6) Throating (7) Cornice  
 (b) Enumerate various stone masonries. Describe rubble masonry in detail with figure. **07**
- OR**
- (b) Describe in brief **07**  
 (1) Foundation in black cotton soil (2) Wash boring
- Q.3** (a) Enlist various bonds in brickwork. Describe English bond and Flemish bond with their essential features. **07**  
 (b) Define composite masonry and write its advantages. Describe any two types of composite masonries in detail. **07**
- OR**
- Q.3** (a) Write a short note on **07**  
 (1) Hollow masonry (2) Cavity wall  
 (b) Describe the properties of fresh concrete. **07**
- Q.4** (a) Define the following with figure in relation to stair **07**  
 (1) Tread (2) Riser (3) Flight (4) Landing (5) Nosing (6) Waist (7) String  
 (b) Describe essential requirements of floor. **07**
- OR**
- Q.4** (a) Enlist various types of doors and explain flush door and collapsible steel door with figure. **07**  
 (b) Enlist various types of windows. Explain bay window and sky light window with figure. **07**
- Q.5** (a) Define the following in relation of roof. **07**  
 (1) Pitch (2) Ridge (3) Valley (4) Common rafter (5) Purlin (6) Eave board (7) Gable  
 (b) Describe the following with figure **07**  
 (1) Lean to roof (2) King post roof truss
- OR**
- Q.5** (a) Define shoring and underpinning. Explain any one method of each. **07**  
 (b) Explain in brief the following **07**  
 (1) Damp proofing (2) Anti-termite treatment

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