

# CBCS Scheme

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15CT45

## Fourth Semester B.E. Degree Examination, Dec.2017/Jan.2018 Building Construction

Time: 3 hrs.

Max. Marks: 80

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. Missing data, if any, may be suitably assumed.**

### Module-1

- 1 a. Explain the purpose of subsoil exploration. (04 Marks)  
b. List the methods to determine bearing capacity and explain any one method. (06 Marks)  
c. What is safe bearing capacity of soil? Briefly explain various methods adopted to improve it. (06 Marks)

**OR**

- 2 a. What are the requirements of good foundation? (04 Marks)  
b. Draw neat labelled sketches of the following types of foundations and explain where they are adopted.  
i) Raft foundation  
ii) Strap footing. (08 Marks)  
c. What is meant by combined footing? When do you adopt it and explain. (04 Marks)

### Module-2

- 3 a. Compare English bond, Flemish bond and double Flemish bond. (06 Marks)  
b. Draw neat sketches of the following and explain :  
i) Reinforced brick work  
ii) Partition walls. (06 Marks)  
c. Explain the classification of bricks. (04 Marks)

**OR**

- 4 a. Briefly explain classification of stone masonry. (06 Marks)  
b. With neat sketches explain various joints provided in stone masonry. (06 Marks)  
c. Draw neat sketches of the following and explain :  
i) Ashlar masonry  
ii) Rubble masonry. (04 Marks)

### Module-3

- 5 a. Define lintel and write the functions of lintel. (05 Marks)  
b. Draw a neat labelled diagram of a reinforced concrete lintel with chajja projection showing the position of reinforcement. (06 Marks)  
c. Define canopy and explain the classifications. (05 Marks)

**OR**

- 6 a. Write the advantages and disadvantages of flat roof compared to pitched roof. (06 Marks)  
b. What are the requirements of good stair? (05 Marks)  
c. Draw a neat sketch of king-post truss and show the various components. (05 Marks)

**Module-4**

- 7 a. What are the main objectives of plastering? (04 Marks)  
b. Explain types of plaster finishes. (06 Marks)  
c. Explain the following :  
i) Mosaic flooring  
ii) Industrial flooring. (06 Marks)

**OR**

- 8 a. Explain the following doors with neat sketch :  
i) Partly panelled and glazed door  
ii) Louvered door. (08 Marks)  
b. Explain the following windows with neat sketches :  
i) Bay window  
ii) Dormer window. (08 Marks)

**Module-5**

- 9 a. What are the defects in painting? (05 Marks)  
b. Explain the procedure of painting for :  
i) Wood surface  
ii) Iron and steel surface. (06 Marks)  
c. What are the applications of painting? (05 Marks)

**OR**

- 10 a. With a neat sketch explain the procedure for sheltering of column. (06 Marks)  
b. Write a note on pre-fabrication technique and its current uses. (05 Marks)  
c. Write briefly explanation with neat sketch about precast doors and window frames. (05 Marks)

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