

B.Tech II Year I Semester (R13) Supplementary Examinations June 2016  
**BUILDING MATERIALS & CONSTRUCTION**  
(Civil Engineering)

Time: 3 hours

Max. Marks: 70

**PART - A**  
(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) List the tests conducted for engineering stone.
  - (b) What are the characteristics of good timber? And mention the defects.
  - (c) What are the important types of cement?
  - (d) Give the chemical reaction takes place during process of lime stone for mortar.
  - (e) What are the characteristics of good roof tile?
  - (f) What is scaffolding? Mention the types of scaffoldings.
  - (g) List the types of floors.
  - (h) What are the types paints?
  - (i) Define the terms:  
(i) Quoin. (ii) King closer. (iii) Bat. (iv) Bed.
  - (j) What is bond? Mention its types.

**PART - B**  
(Answer all five units, 5 X 10 = 50 Marks)

**UNIT - I**

- 2 (a) Mention the factors to be considered while deciding a quarry site.  
(b) Explain methods of quarrying.

**OR**

- 3 (a) Explain the tests required to determine the suitability of bricks for construction works.  
(b) With a neat sketch, explain the parts of Bull's trench kiln.

**UNIT - II**

- 4 What are the ingredients of cement? Explain them.

**OR**

- 5 What are the requirements of good concrete? Explain any five briefly.

**UNIT - III**

- 6 Explain the causes and effects of dampness.

**OR**

- 7 What are the requirements of good formwork and what are the materials used in formwork? Explain with neat sketch, shuttering for beam and slab using timber formwork.

**UNIT - IV**

- 8 What are the types of staircases? Draw the sketch and explain the components of a stair.

**OR**

- 9 Mention the types of roofs. Explain with neat sketch King post and Queen post roofs.

**UNIT - V**

- 10 Explain with neat sketch English and Flemish bonds.

**OR**

- 11 Explain with neat sketch combined and raft footing.

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