

Code: 13A01304

B.Tech II Year I Semester (R13) Supplementary Examinations June 2017

**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) What are the characteristics of good brick?
  - (b) Define seasoning of timber and its purpose.
  - (c) What are the characteristics of a good lime?
  - (d) Draw the flow chart for manufacturing process of cement.
  - (e) Distinguish between paint and distemper.
  - (f) What is meant by 'knotting' in painting work?
  - (g) What are the various types of floors?
  - (h) What is the use of flashings in sloped roof construction?
  - (i) What are requirements of good foundation?
  - (j) What is cavity in walls?

**PART - B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT - I**

- 2 (a) Explain various quarrying methods of stone along with their importance.  
(b) Explain the process of burning bricks in Hoffman's kiln with a neat sketch.

**OR**

- 3 (a) Explain various tests conducted on burnt bricks.  
(b) What are the characteristics of good timber and its common uses in building industry?

**UNIT - II**

- 4 (a) List different types of cements. Explain any three.  
(b) Explain different classification of lime.

**OR**

- 5 (a) Differentiate between quick lime and slaked lime.  
(b) What are the oxides present in Portland cement and explain their role.

**UNIT - III**

- 6 (a) Explain the general characteristics of the water proofing compounds.  
(b) What are the composition and properties of distemper? Explain various stages involved in distempering process.

**OR**

- 7 (a) Mention the different types of varnishes and describe the process of varnishing on wood work.  
(b) Describe the manufacturing method of tiles and list different types of tiles.

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**UNIT - IV**

- 8 (a) What do you understand about the lintels and arches and explain them clearly with the help of neat sketches?  
(b) Explain pitched roof, flat roof and lean to roof with neat sketches.

**OR**

- 9 (a) What are the requirements of good stairs?  
(b) Write different types of roof trusses, explain queen post truss with a neat sketch.

**UNIT - V**

- 10 (a) Explain with the help of sketches various types of foundations.  
(b) Compare English bond, Flemish bond and double Flemish bond.

**OR**

- 11 (a) Explain rubble masonry work and its types with the help of neat sketches.  
(b) Discuss the construction of cavity wall and partition wall in buildings and explain why and where they are adopted.

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