

B.Arch. Examination, 2018
(1st Year, 1st Semester, Supplementary Exam 2018)

MATERIALS AND METHODS OF CONSTRUCTION-I

Full Marks: 100

Time: Three Hours

The figures in the margin indicate full marks
Answer any 5 questions, All questions carry equal marks

1. (i) Explain bonding in brick masonry and its various techniques and its importance in brick masonry. Illustrate with Sketches. 15
(ii) What is Natural bed of a stone? Explain its importance with sketches. 05
2. (i) What is chemical classification of rocks? Explain with examples. 10
(ii) Highlight the characteristics and application of the following stones in building construction : Granite, Slate, Sandstone, Mooram & kota stone 10
3. (i) Differentiate between dry rots and wet rots ? How are they caused and prevented. 5
(ii) Differentiate between Plywood and veneers. 5
(iii) How are trees classified based on its mode of growth? Give two examples of each and their uses as building materials. 10
4. Differentiate between the following: (any 4) (4x5= 20)
 - i. Single Flemish Bond & Double Flemish Bond.
 - ii. Ashlar Masonry & rubble masonry
 - iii. Lamin Board & Block Board
 - iv. Natural Seasoning & Artificial seasoning
 - v. Poor Lime & Hydraulic Lime
 - vi. Fine Aggregates & Coarse Aggregates.
5. Briefly explain the following : (any 4) (4x5= 20)
 - i. Acoustic Materials with examples.
 - ii. Different types of Construction equipment used in construction.
 - iii. Formwork and its importance in construction.
 - iv. Fire-Resisting materials with examples.
 - v. Green Building materials with examples
6. (i) Sketch and state the uses of Queen closer, King closer and Half Bat brick. 10
(ii) What is efflorescence in brickwork? What are its causes and remedies? 5
(iii) Write short notes on refractory bricks and earthenware 5
7. (i) Draw the plans, elevation and isometric view for a T joint brick masonry in Rat Trap Bond. (Size of brick 250mm x 125mm x 75mm) 10
(ii) Draw the plans, elevation and isometric view for a Right angled joint brick masonry in English Bond for one brick thick wall Bond. (Size of brick 250mm x 125mm x 75mm). 10
Take a suitable scale.