



Name :

Roll No. :

Invigilator's Signature :

CS/B.TECH(CE)/SEM-3/CE-306/2010-11

2010-11

BUILDING MATERIALS & CONSTRUCTION

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) The size of modular brick is
 - a) 190 × 90 × 90 mm
 - b) 200 × 200 × 100 mm
 - c) 9" × 4.5" × 3"
 - d) 100 × 40 × 10 mm.
- ii) The purpose of frog on brick is
 - a) to hold the mortar firmly
 - b) to make easy the handling of the brick
 - c) to reduce the weight of the brick
 - d) none of these.



- iii) The Crushing strength of 1st class brick is
- a) 7N/mm^2 b) 10N/mm^2
c) 15N/mm^2 d) 5N/mm^2 .
- iv) Bulking of sand is maximum in
- a) Fine sand b) Medium sand
c) Coarse sand d) Mixture of sands.
- v) Proportion of cement and sand in mortar for interior plastering is
- a) 1 : 4 b) 1 : 5
c) 1 : 6 d) 1 : 2.
- vi) Efflorescence of bricks is due to
- a) Presence of alkalies in bricks
b) High silt content in bricks
c) Excessive burning of bricks
d) High porosity of bricks.
- vii) Bitumen is derived from
- a) Petroleum b) Coal
c) Wood d) None of these.
- viii) When a brick is cutoff lengthwise, the cut-out brick is called
- a) King closer b) Queen closer
c) Corbel d) Bat.

- GROUP – B**

Answer any *three* of the following. $3 \times 5 = 15$

- 3206



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

8. a) What is the objects of foundation ?
b) Briefly write down the classification of foundation with neat sketch. $3 + 12$
9. Briefly define the types of pitched roof with neat sketches. 15
10. a) Plan a dog legged stair for a building in which the vertical distance between the floor is 3.6 m. The stair hall measures 2.5 m × 5 m.
b) Write short notes on Flemish bond and English bond. $10 + 5$
11. What are the steps usually required for preparation of clay ? Give brief description of each. What is pug mill ? Give description of each part. $5 + 5 + 5$
12. State the advantage of seasoning. State the difference between natural seasoning & Kiln seasoning. State the advantage of Ply wood. $5 + 5 + 5$
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