

Total number of printed pages—4

53 (CE 304) BMAC

2014

**BUILDING MATERIALS AND
CONSTRUCTION**

Paper : CE 304

Full Marks : 100

Pass Marks : 30

Time : Three hours

*The figures in the margin indicate full marks
for the questions.*

Answer any five questions.

1. (a) Explain various causes of dampness in building. 5
- (b) What are ill effects of dampness in buildings ? 5
- (c) What are the constituents of a paint ? Explain them. 10
2. (a) Draw a neat sketch of a battened, ledged and braced door and label various parts. 10

Contd.

- (b) Name *at least five* different types of windows and explain the method of fixing of *any one* type of window. 10
3. (a) Plan a dog-legged stair for a building in which the vertical distance between the floors is 3.6m . The stair hall measures $2.5\text{m} \times 5\text{m}$. 5
- (b) Write short notes on the following :
- (i) Metal stairs $3 \times 3 = 9$
- (ii) R.C.C. stairs
- (iii) Spiral stairs
- (c) Differentiate between $3 \times 2 = 6$
- (i) Quarter turn stair and spiral stair
- (ii) Dog-legged stair and open newel stair
4. (a) Write short notes on the following types of flooring : $3 \times 2 = 6$
- (i) Mosaic flooring
- (ii) Tiled flooring

- (b) What are the different types of roof trusses ?
Explain them. 10
- (c) What do you mean by Orientation of a
building ? Why is it important ? 4
5. (a) Differentiate between English bond and
Flemish bond with a neat diagram. 10
- (b) What are the components of a building ?
Explain them. 10
6. (a) What are the different manufacturing
processes of bricks ? Explain *any one* with
a suitable diagram. 10
- (b) What are the different test conducted for
classification of bricks ? Give the properties
of different classes of bricks. 10
7. (a) What are the different constituents of
cements ? Explain with their percentage and
importance. 10

(b) Explain the following : $5 \times 2 = 10$

- (i) curing of concrete
 - (ii) preservation of timber
 - (iii) scaffolding
 - (iv) live load and dead load
 - (v) dressing of rocks.
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