

Roll No.

24065

B. Tech 3rd Sem. Civil Engg.

(Branch – XI)

Examination – December, 2011

BUILDING CONSTRUCTION MATERIALS

Paper : CE-203-F

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions, but at least *one* from each Part. Draw neat sketches as and where required.

PART – A

1. (a) Show with the help of neat sketches the plan along with L section of two alternate courses of the following bonds :
 - (i) 1½ brick wall English Bond (300 mm).
 - (ii) One brick wall English Bond (200 mm).

- (b) Give comparison between stone and brick masonry indicating their merits and demerits.

10 + 10 = 20

2. (a) Describe the following partition walls :

(i) Hollow concrete block.

(ii) Metal lath and plaster.

(iii) AC Sheet or G.I. Sheet.

- (b) Discuss the various causes of failure of foundations.

6 + 14 = 20

PART – B

3. (a) Describe in brief various types of roof coverings for pitched roofs.

- (b) Describe the construction of :

(i) Marble flooring,

(ii) Mosaic flooring.

10 + 10 = 20

4. Differentiate between the following with the help of neat sketches :

(a) Panelled door and Glazed door Shutters.

(b) Fixed and pivoted windows.

(c) Sliding door and Rolling door shutters.

(d) Butt hinges and Rising butt hinges.

4 × 5 = 20

PART – C

5. (a) Describe in detail the construction of basement to be used as a store. How will you ensure its water-proofing ? Draw a cross- section with all details showing provisions of D.P.C. in damp soil in respect of a basement.
- (b) Give specifications of laying a damp-proof course with cement concrete at plinth level. 15 + 5 = 20
6. (a) Explain acoustical design of an auditorium.
- (b) Describe the fire-proofing properties of the following materials :
- (i) Concrete,
 - (ii) Plaster or Mortar,
 - (iii) Asbestos. 14 + 6 = 20

PART – D

7. (a) What precautions are to be taken in the process of blasting to avoid the occurrence of an accident ?
- (b) Give the qualities of good bricks and describe their classifications. 10 + 10 = 20

8. (a) List uses of plywood and fibre board.

(b) Give properties of a good mortar.

(c) What are the objectives of applying varnish on a wooden surface ? Describe the method of applying varnish.

8 + 5 + 7 = 20

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