B. Tech. 7th Semester (Civil Engg.) Examination,

May–2011

ESTIMATING & COSTING

Paper - CE-405-E
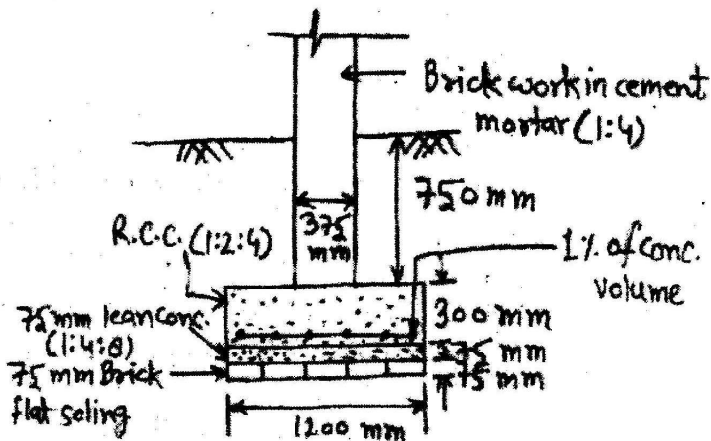
Time allowed : 3 hours] _[Maximum marks : 100_

Note :Attempt any five questions.

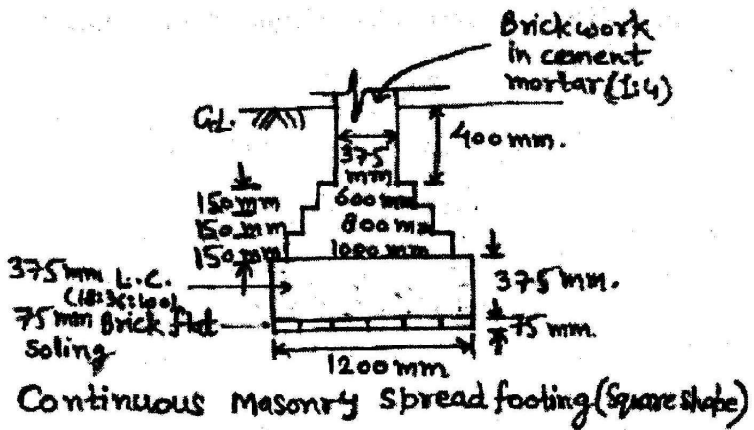1. (a) What is estimate, how it differs from actual cost? Write the purpose of estimation as well. 10

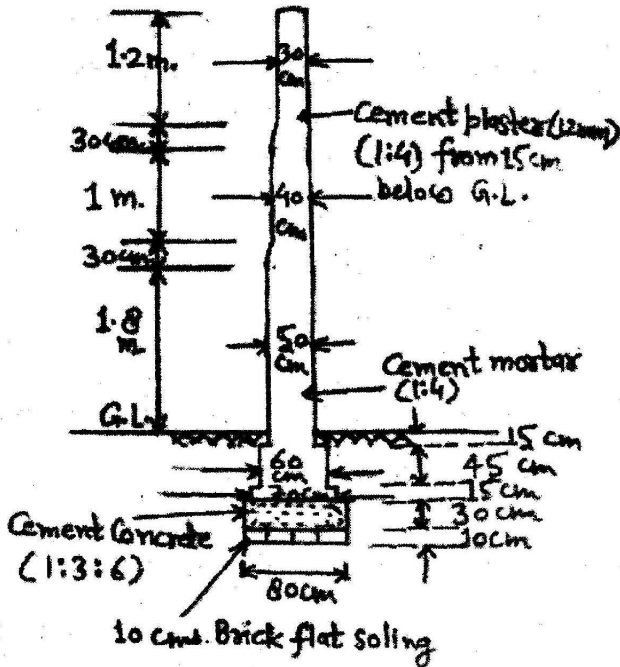   (b) Compare the quantities of following items in the figure (fig.-1) given below : 10

Continuous concrete raft footing
(Square shape)

Continuous Masonry Spread footing (Square shape)

    (i)   Earthwork in excavation in foundation.

    (ii)   75 mm. thick brick flat soling.

    (iii) Brick work in footing.

    (iv) Quantity of total concrete consumed in footing.

2.   (a)   Define specification and discuss its necessity. Also write the different types of specifications.

                                       10

    (b)   Write specification about following materials :

        (i)   Sand

        (ii)   Lime

        (iii) Cement

        (iv) Bricks   .   10

3. (a) Discuss the advantages and disadvantages of open, restricted and closed specification. 10

   (b) Write detailed specification about following works : 10

      (i) Painting

      (ii) Cement plastering

4. (a) Why rate analysis is done and how we prepare the rate per unit of an item? 10

   (b) Write the rate analysis for lime concrete in foundation with 40 mm. down stone ballast, lime and sand proportioning (1:2:4) for first 10 cum. Assume local rates for various items. 10

5. (a) Define following terms : 10

      (i) General overheads

      (ii) Job overheads

      (iii) Task or out-turn work

(b) Give complete material estimation for the given figure (fig. 2) :   10

6. (a) Describe contract with its various types.   10

(b) Define following terms :   10

  (i) Sinking fund

  (ii) Salvage value

  (iii) Tender

  (iv) Retention money

  (v) Technical sanction
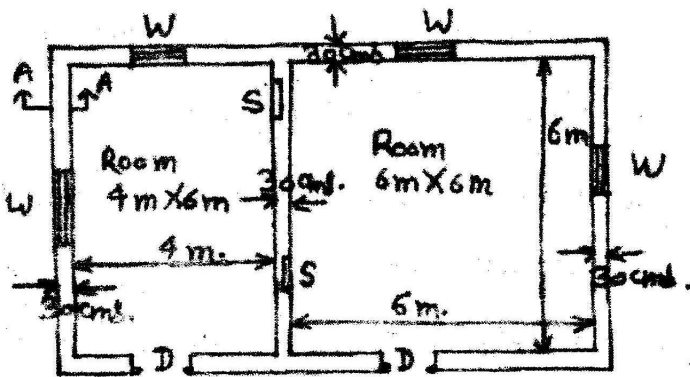
7. (a) Describe about different methods of valuation.

10

(b) A lease-hold property is to produce a net income of rupees 12000/- per annum for the next 60 years. What is the value of property? Assume that the landlord desires a return of 6% on his capital and the sinking fund to replace the capital is also to accumulate at 6%.
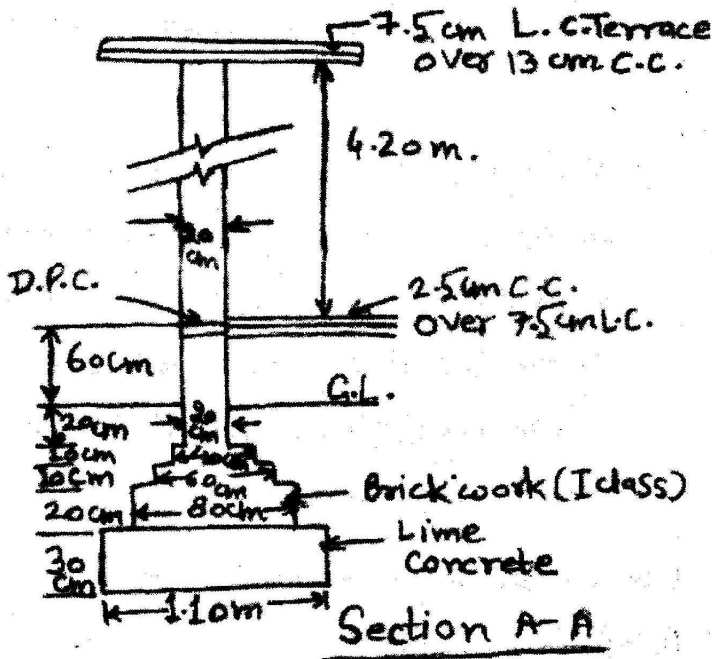
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8. Calculate the following quantities from the given figure (fig. 3) :

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Plan

Door, $D = 1.20m \times 2.10m$.
Window $W = 1.00m \times 1.50m$.
Shelves, $S = 1.00m \times 1.50m$.

7.5 cm L.C. Terrace over 13 cm C.C.

4.20 m.

D.P.C.

2.5 cm C.C. over 7.5 cm L.C.

60 cm

G.L.

20 cm
5 cm
10 cm
20 cm

60 cm
80 cm

Brick work (I class)

Lime Concrete

30 cm

1.10 m

Section A-A

(i)　Earthwork in excavation in foundation.

(ii)　Lime concrete in foundation.

(iii) 1 class brickwork in cement mortar 1:6 in foundation and plinth.

(iv) 2.5 cm. thick cement concrete damp proof course.

(v) 1 class brickwork in lime mortar in superstructure.