D = 1m x 2 m
W = 1.5 m x 1.5 m

Plan

Fig. (1)

Section on XX

Fig. (2)

Cross section on slab

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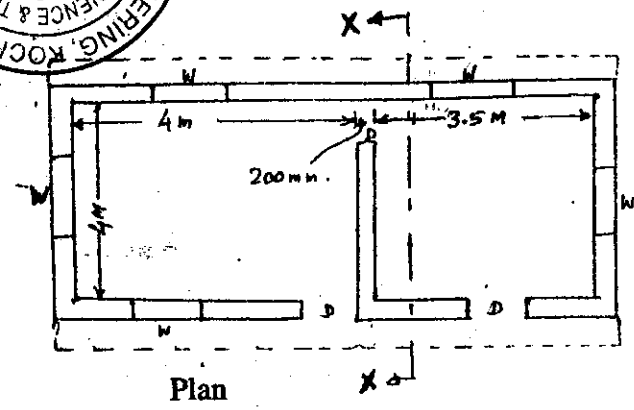# B.Tech. Degree VIII Semester Examination
May 2003

CE 802 QUANTITY SURVEYING AND VALUATION

(1999 Admissions)

Time: 3 Hours   Maximum Marks: 100

(Assume suitable data if necessary)
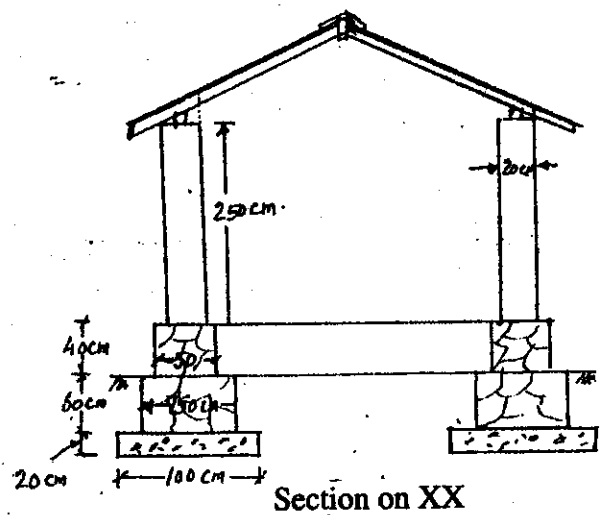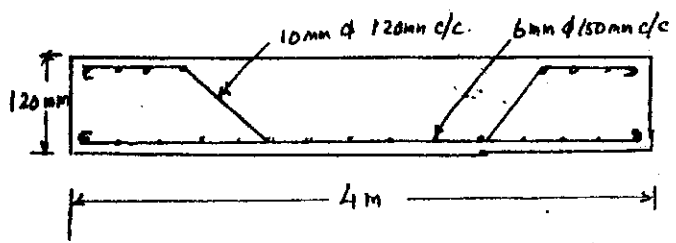
I. Calculate the quantities of the following items of work of the building shown in figure 1 (Figure in page No. 4).

(i)   Earth work excavation for foundation

(ii)   Cement concrete 1 : 4 : 8 in foundation for bed concrete.

(iii) R.R in CM 1 : 6 for foundation and basement.

(iv)   Plastering with CM 1 : 4, 12mm thick over walls.

(v)   Flooring with cement concrete 1 : 4 : 8 using 40mm brocken stone 75mm thick.

(vi)   Ridge tiles set in cement mortar.   (40)

OR

II. (a) Prepare a detailed estimate of the quantities of concrete and steel of R.C.C slab of overall dimensions 4m x 8.5m having an overall depth of 120mm. 10mm diameter main bars are spaced at 120mm centres with alternate bars bend up at 1/5 span. 6mm diameter distribution steel is provided at 150mm centres. Cross section of slab is shown in figure 2. (Figure in page No. 4) Prepare bar bending schedule separately.   (20)

(b) Calculate the quantity of earth work for a portion of a road from the following data: (20)

Formation width of road   = 10m

Side slope 2 : 1

Assume there is no transverse slope.

Use prismoidal formula.

Distance in m	0	100	200	300	400	500	600
R.L of ground	114.50	114.75	115.25	115.20	116.10	116.85	118.0
R.L of formation	115	Upward gradient 1 : 200					

(Turn over)

III.   (a)   What are the objects of specification?   (6)

       (b)   The rate for item is varied from site to site. Why?   (4)

       (c)   Write down the specification for Random rubble masonry.   (5)

       (d)   Write down the specification for painting doors and windows.   (5)

OR

IV.   Determine the rate for standard unit of teakwood planed and framed work for frames of doors, windows, ventilators etc from the following details. Provide 10% for contractors profit.

Cost of materials and labour charges for 10dm³ scantling

Materials:

       14.4dm³ Teak log at Rs.396/10dm³

Labour:

       0.02 man to put log in position and to assist sawyer at Rs.91/each.

       0.33 m² sawing (at 4.3 sawyer per 10m² sawing) Sawyer at Rs.123/each.

Deduct 3.8dm³ cost of outer slab at 25% log value.

Teak wood planed and framed work

Materials:

       10.5dm³ teak wood scantling

Labour:

       0.22 carpenter   at Rs.134/each.

       0.10   man   at Rs.91/each.   (20)

V.   Write short notes on the following:

       (i)   Valuation

       (ii)   Sinking fund

       (iii)   Depreciation

       (iv)   Outgoings   (20)

OR

VI.   (a)   What is meant by market value? Explain in detail the factors which will influence the same.   (8)

       (b)   An old building has been purchased by a person for s.5000000. Calculate the coefficient of sinking fund, amount of sinking fund and yearly instalment of sinking fund if the future life of the building is 25 years, rate of interest is 5% and scrap value is 10% of the cost of purchase.   (12)

VII.   (a)   Describe the various types of outgoings.   (5)

       (b)   Mention the various methods used to compute the depreciation of property. Explain in detail any two methods.   (10)

       (c)   Explain the terms "market value" and "Book value".   (5)

OR

VIII.   (a)   Explain:

            (i)   Present value

            (ii)   Years purchase

            (iii)   Fair value

            (iv)   Fancy value   (8)

       (b)   A coloniser intends to purchase a land of 100000m² area located in the suburb of a big city to develop it into plots of 700m² each after providing necessary roads and parks and other amenities. The current sale price of small plots in the neighbourhood is Rs.50/m². The coloniser wants a net profit of 18%. Work out the maximum price of the land at which he may purchase the land assuming proper values for deductions.   (12)