B.Tech. Degree VIII Semester Examination, April 2009

CE 802 QUANTITY SURVEYING AND VALUATION

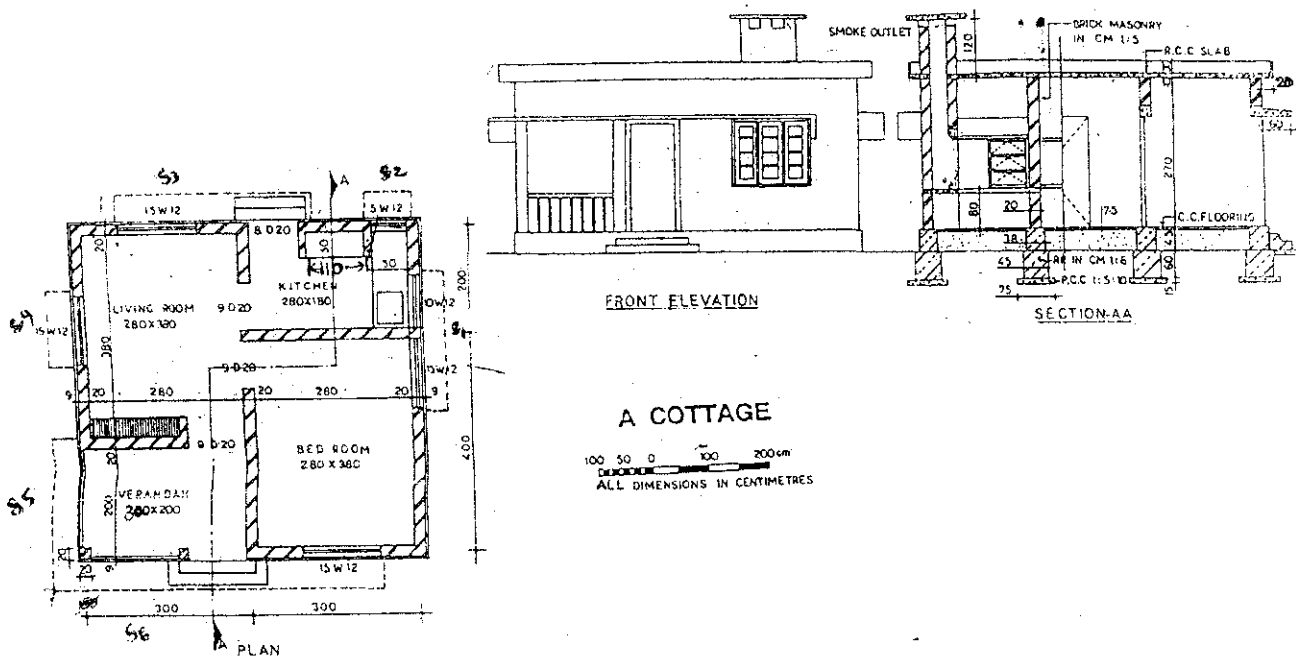*(1999 Admission)*

Time: 3 Hours   Maximum Marks: 100

(Assume suitable data if necessary)

I . Fig. shows the plan, elevation and section of a small cottage. Work out the quantities of the following items of work.

FRONT ELEVATION

SECTION-AA

A COTTAGE

ALL DIMENSIONS IN CENTIMETRES

PLAN

    i)   Earthwork excavation in hand soil.

    ii)   R.R. Work in CM 1: 6 for foundation and basement.

    iii)   R.C.C. work for lintels, sunshades and roof slab.

    iv)   Flooring with P.C.C. 1 : 4 : 8 plastered over with CM 1:3.   (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 centers with alternate bars bend up at 1/5 span. 6mm diameter distribution steel is provided at 150mm centers. Cross section of slab is shown in Figure. Prepare bar bending schedule. Separately.   (20)
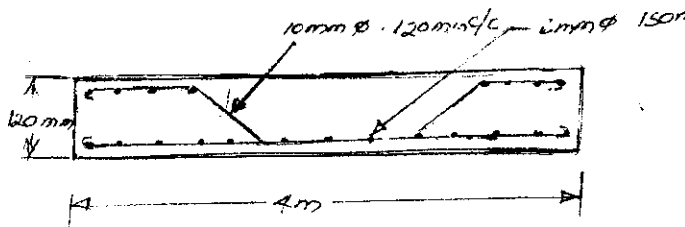
    b)   Calculate the quantity of earthwork for a portion of a road from the following data.
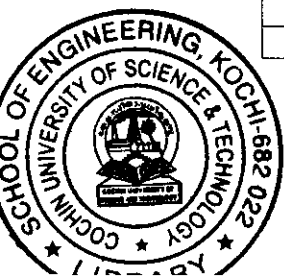
           Formation width of road   = 10m

           Side slope   = 2 : 1

Assume there is no transverse slope

Use prismoidal formula   (20)

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
R.L. of formation	115	Upward Gradient 1: 200					

III	a)	What is the importance of detailed specifications? How it differ from brief Specifications?	(6)
	b)	Write the detailed specifications of	

        i)   Brickwork in CM 1 : 5 using country burnt bricks.
        ii)   Painting new wood work
        iii)   R.C.C. 1 : 2 : 4 for roof slab   (3 x 3 = 9)

    c)   Explain with an example the procedure for working out the cost of materials at site.   (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 Contractor's profit.

<u>Cost of materials and labour charges for 10dm^3 scantling</u>

    <u>Materials</u>:.
        14.4 dm^3 teak log at Rs.396/10 dm^3

    <u>Labour:</u>
        0.02 man to put log in position and to assist sawyer at Rs.91 each.
        0.33 m^2 sawing (at 4.3 sawyer per 10m^2 sawing)
        Sawyer at Rs.123/each.
        Deduct 3.8 dm^3 cost of outer slab at 25% log valve.

<u>Teak wood planed ad framed work</u>

    <u>Materials:</u>
        10.5 dm^3 teak wood scantling.

    <u>Labour:</u>
        0.22 carpenters at Rs.134 each
        0.10 man at Rs.91/each.   (20)

V	a)	What are the purposes of valuation?	(5)
	b)	Differentiate between: Obsolescence" and "depreciation".	(5)
	c)	A building is constructed on a lease hold property at a cost of Rs.2,50,000/-.	

The ground rent is Rs.400 per annum. The rent collected is Rs.2000/- per month.
The outgoings are:

        i)   Taxes   --   20% og gross rent
        ii)   Insurance   --   1% of gross rent
        iii)   Other expenses --   15% of gross rent
        iv)   Sinking fund at 4% for 90% of building cost.

Compute the capitalized value on the basis of 8% net yield of the expected future life of the building is 60 years.   (10)

OR

VI	a)	Explain how bank rate affects the value of a property.	(6)
	b)	Name different methods of valuation & explain one method in details.	(8)
	d)	What is meant by market value? Explain in detail the factors which will influence the same.	(6)

VII	a)	Differentiate between "scrap value" & "salvage value".	(6)
	b)	What is "belt method"? When do we use this method?	(8)
	c)	What is "Annuity" and its applications in valuation.	(6)

OR

VIII	a)	Explain:	

        i)   Present value
        ii)   Years purchase
        iii)   Fair value
        iv)   Fancy value.   (8)

    b)   A real estate agent purchases a vacant land of extent 5 hectares at a cost of Rs.50 per m^2. He divides the land into building plots of 500m^2 area after leaving 30% of the land for roads, parks etc. Expenses for development is at Rs.20/m^2 and technical charges at 5% of cost price. Work out the selling price of each plot of the agent expecting 25% profit for his investment.   (12)

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