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Name:.....

Reg:.....

# VIII TH SEMESTER B.Tech. DEGREE EXAMINATION DECEMBER 2009

## CE 04801 –QUANTITY SURVEYING AND VALUATION
## (2004 Admission)

**Time : 3hrs** **Maximum: 100 Marks**

**(8 x 5 = 40)**

1 (a) Why estimate in Civil Engineering Projects?

(b) Compare various types of estimate.

(c) With suitable sketches, estimate the quantities for a typical door in a residential building.

(d) Write detailed specifications for earthwork excavation.

(e) How you will prepare conveyance statement?

(f) Explain the need of abstract of estimate in Civil Engineering works.

(g) Compare various methods of calculation of depreciation.

(h) What are the objects of valuation?

2 (a) **(15)**

Prepare a detailed estimate of a building as shown in the attached Figure for the quantities using centre line method

i. Earth work
ii. Cement Concrete in foundations
iii. Foundation work
iv. R.C.C. Roof slab
v. Brick work for Superstructure

**(OR)**

(b) **(15)**

Prepare an abstract of estimate for the building shown in the attached Figure for the quantities using individual wall method for the following items:

i. Earth work
ii. Cement Concrete in Foundation
iii. Foundation work

3 (a) Estimate the cost of earthwork for a portion of road for 300 metre length from the following data: **(15)**

[redacted]

| Distance in metre | R.L. of ground |
|---|---|
| 0 | 105.00 |
| 30 | 104.60 |
| 60 | 104.70 |
| 90 | 104.50 |
| 120 | 104.70 |
| 150 | 105.10 |
| 180 | 105.60 |
| 210 | 105.70 |
| 240 | 105.40 |
| 270 | 105.20 |
| 300 | 104.80 |

R.L. of formation at R.D. 0 is 105.30 and the road gradient as 1 in 300 fall. Formation width of road is 10 metres with side slope 2:1 in filling and 1:1 in cutting.

Rates:- Filling Rs. 150.00 per cu m.

Cutting Rs. 125.00 per cu m.

**(OR)**

(b) Write down the specifications for various masonry items in a typical public building. **(15)**

4 (a) Analyse the rates for the following items: **(15)**

i. Brick masonry in cm 1:6 in ground floor

ii. Brick masonry in cm 1:6 in first floor

iii. R.C.C roof slab using M20 concrete

**(OR)**

(b) Work out the quantity of cement concrete and prepare a bar bending schedules for an R.C.C. beam with the following data: **(15)**

Clear span = 5.5 m

[redacted]

Bearing = 0.3 m on either side

Reinforcement = 4 bars (main) 20 mm dia

Hanger bars = 3 Nos. 12 mm dia

Stirrup = 10 mm dia at 150 mm c/c

Assume any other data

5 (a) (i) Discuss the importance of valuation. **(7)**

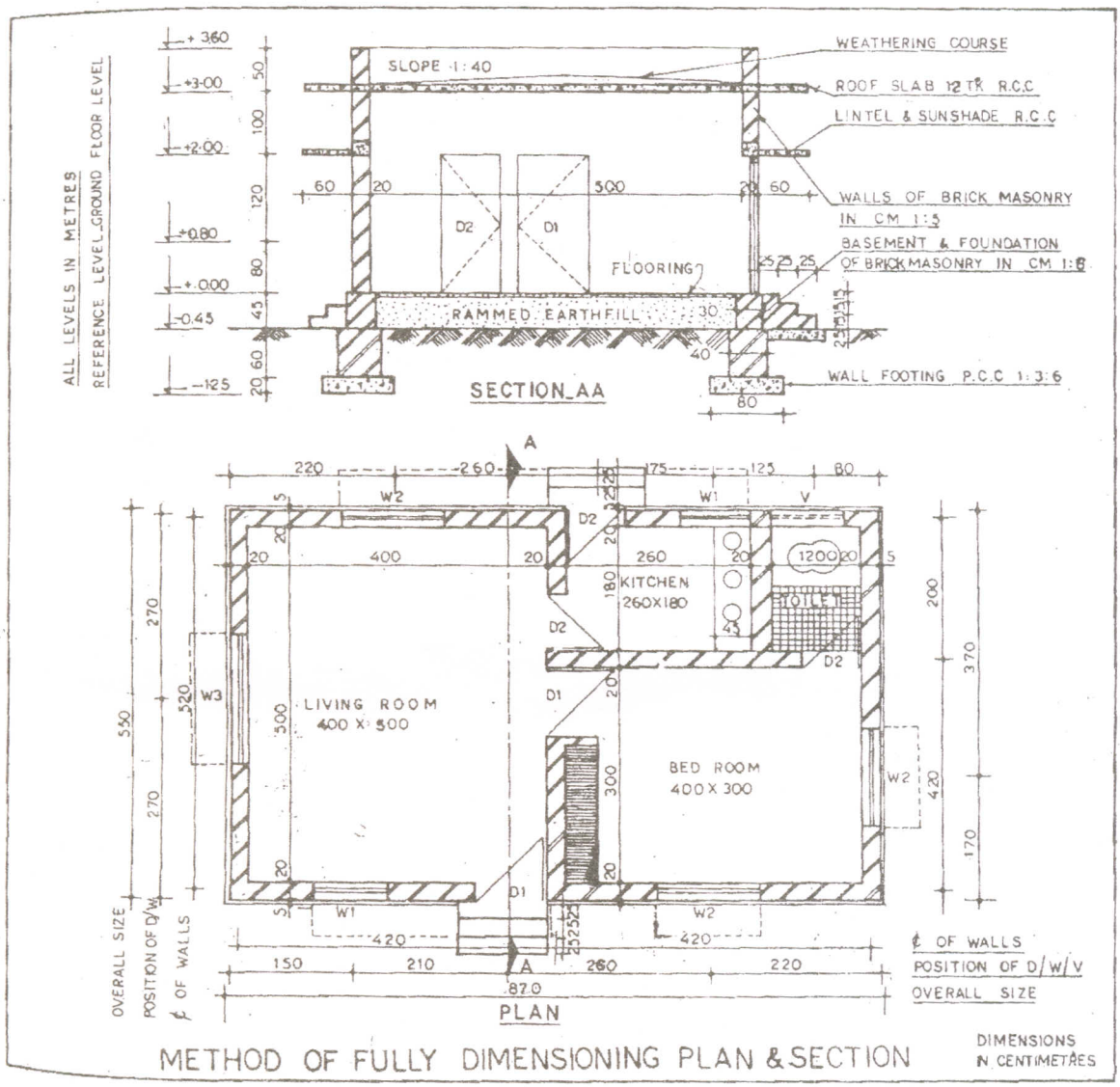
(ii) Determine the present value of a building which was constructed 35 years ago at Rs. 50,000. The estimated life of building is 80 years at the end of which it will have 10% scrap value of its cost of construction using straight line method. **(8)**

**(OR)**

(b) (i) Compare various methods of determining value of property. **(7)**

(ii) A newly constructed buildings stands on a plot costing Rs. 60000/-. The Construction cost of the building is Rs. 2,00,000/- and the estimated life of the building is 60 years. The investor desires to have 80% return on the construction cost and 5% return on the land cost. Assuming annual repairs to be at ½% of the cost of construction and other outgoings at 30% of the gross rent, calculate the annual rent that will have to be charged for the building. Annual instalment of the sinking fund for a life of 60 years of the building at 3% may be taken as ½ paisa per rupee. **(8)**

[redacted]


ALL LEVELS IN METRES
REFERENCE LEVEL_GROUND FLOOR LEVEL
+3·60
+3·00
+2·00
+0·80
+·000
-0·45
-1·25
SLOPE 1:40
WEATHERING COURSE
ROOF SLAB 12 THK R.C.C
LINTEL & SUNSHADE R.C.C
WALLS OF BRICK MASONRY IN CM 1:5
BASEMENT & FOUNDATION OF BRICK MASONRY IN CM 1:6
FLOORING
RAMMED EARTHFILL
WALL FOOTING P.C.C 1:3:6
D1
D2
SECTION_AA
A
W1
W2
W3
V
KITCHEN 260X180
TOILET
LIVING ROOM 400 X 500
BED ROOM 400 X 300
OVERALL SIZE
POSITION OF D/W/V
℄ OF WALLS
PLAN
METHOD OF FULLY DIMENSIONING PLAN & SECTION
DIMENSIONS IN CENTIMETRES