Total No. of Questions : 10] [Total No. of Printed Pages : 4

Roll No. .....

CE–405(O)

B. E. (Fourth Semester) EXAMINATION, Dec., 2009

(Old Scheme)

(Civil Engg. Branch)

QUANTITY SURVEYING AND COSTING

[CE–405(O)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt all the *five* questions. Assume suitable missing/ misprint data if required.

1. (a) Discuss the uses and importance of estimate. 10

   (b) Differentiate between the following : 5 each

   (i) Carpet area and built up area

   (ii) Revised estimate and supplementary estimate

Or

2. (a) Explain the following : 5 each

   (i) Plinth area rate and cubical content rate

   (ii) Measurement sheet and abstract sheet

   (b) Prepare a preliminary estimate of a building project having total plinth area of all buildings of 2000 sq. m. Given that : 10

   (i) Plinth area rate = Rs. 3,000 per sq. m

P. T.

(ii) Extra for special architectural treatment $= 2\frac{1}{2}\%$ of building cost

(iii) Extra for water supply and sanitary installations = 5% of building cost

(iv) Extra for internal installation = 15% of building cost

(v) Extra for services = $6\frac{1}{2}\%$ of building cost

(vi) Contingencies = 3%

(vii) Supervision charges = 8%

3. (a) Explain the following : 10

   (i) C. S. R.

   (ii) Factors involved in the rate of an item

   (b) What is the rate analysis of lime concrete in foundation with 40 mm brick ballast ? Unit 1 Cu. m. 10

Or

4. (a) Write the detailed specification for R. C. C. 1 : 2 : 4. 10

   (b) Analyse and derive the rate for cement concrete 1 : 5 : 10 in foundation with brick ballast 40 mm. Unit 1 Cu. m. 10

5. Details of a residential building are shown in attached drawing on fig. 1. Estimate the quantity of the following items of work : 20

   (i) Earth work in excavation

   (ii) I class brick work in superstructure

Or

6. Estimate the cost of earth work for a portion for 320 m length from the ahead data :

Formation witdh of road is 10 m, site slopes are 2 : 1 in banking and $1\frac{1}{2}$: 1 in cutting : 20

Station	Distance	R. L. of ground (m)	R. L. of formation (m)
25	1000	51·00	50·00
26	1040	50·90	|
27	1080	50·50	Downward
28	1120	50·80	gradient of
29	1160	50·60	1 in 200
30	1200	50·70	|
31	1240	51·20	|
32	1280	51·40	|
33	1320	51·30	|

7. (a) Discuss about the various factors which affect the cost of work. 10

   (b) Explain the following : 10

   (i) Overhead charges

   (ii) Contingencies

   (iii) Work charge establishment

Or

8. (a) State the various percentages for different services in building work. 10

   (b) Discuss in detail various causes which will raise the cost of work due to various reasons during execution of work. 10

9. (a) Define the following terms : 8

   (i) Net income

   (ii) Year's purchase

   (iii) Sinking fund

   (iv) Scrap value

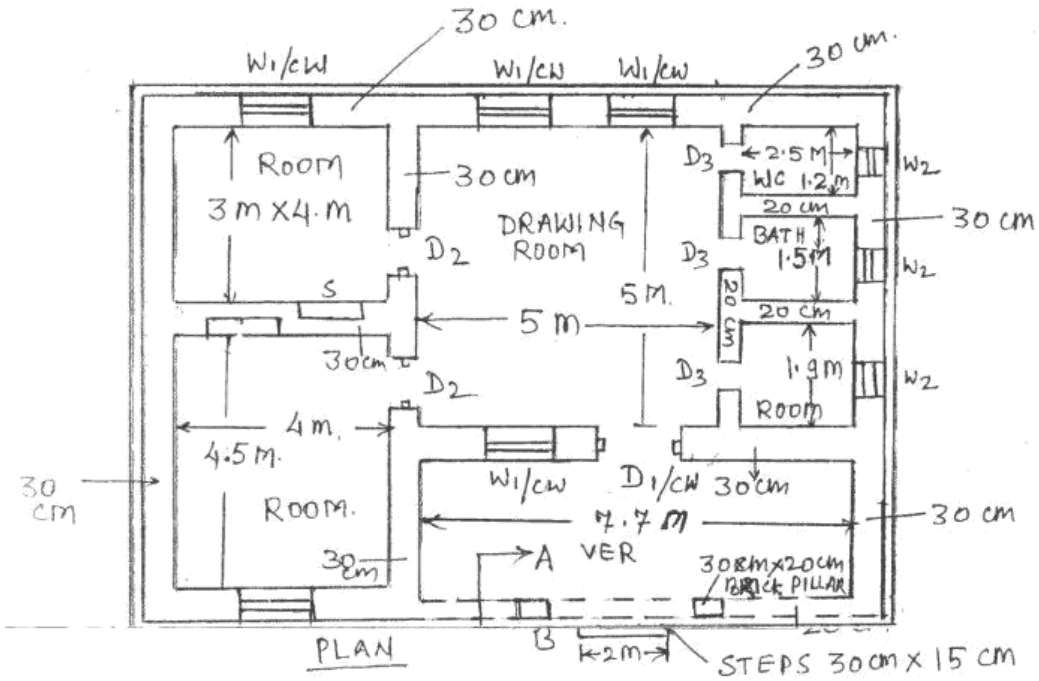
   (b) State and explain the various methods of valuation. 12

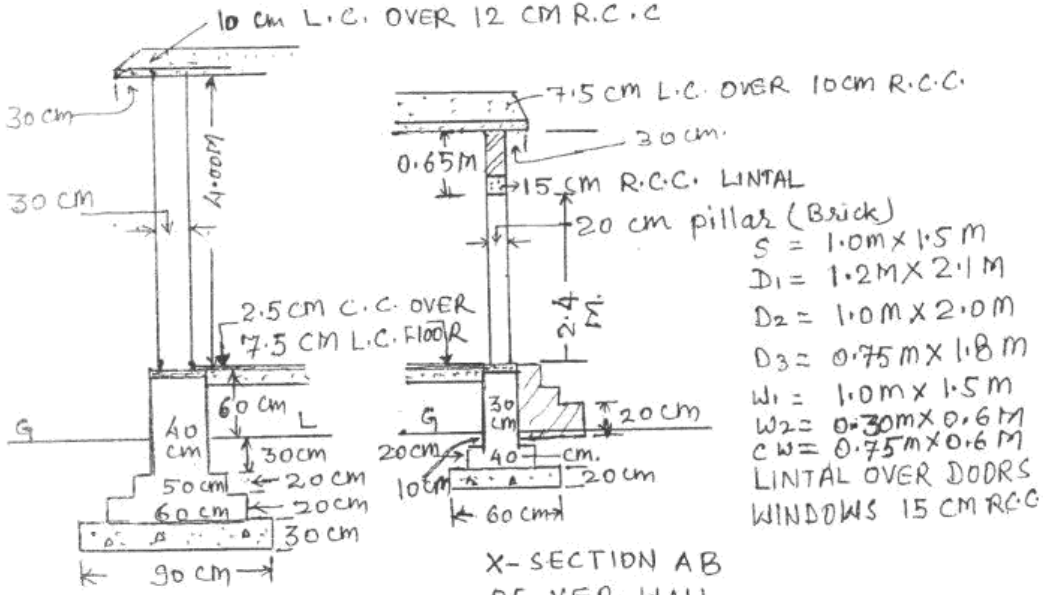
Or

10. (a) Define depreciation. Discuss in brief various methods of calculating depreciation. 10

    (b) A coloniser intends to purchase a land of 10000 sq. m area located in suburb of a big city to develop it into plots of 700 sq. m each after providing necessary roads and parks and other amenities. The current sale prize of small plot in neighbourhood is Rs. 1,000 per sq. m. The coloniser wants a net profit of 20%. Work out the maximum price of the land at which coloniser may purchase the land. 10

fig (1) CE-405(O)





S = 1.0m x 1.5 m
D1 = 1.2M X 2.1 M
D2 = 1.0m X 2.0m
D3 = 0.75 m X 1.8 m
W1 = 1.0m x 1.5 m
W2 = 0.30m X 0.6 M
CW = 0.75m X 0.6 M
LINTAL OVER DOORS
WINDOWS 15 CM R.C.C.

X-SECTION OF MAIN WALL
30 CM THICK.

X-SECTION AB
OF VER. WALL

20 CM THICK WALL HAVE SIMILAR X-SEC.