

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

Roll No.

CE-405

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

(Old Scheme)

(Civil Engg. Branch)

QUANTITY SURVEYING AND COSTING

(CE-405)

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt all questions. Internal choice is given in each question. Assume suitable any missing or misprint data.

1. (a) Differentiate between the following : 5 each
- (i) Carpet area and Builtup area.
 - (ii) Revised estimate and Supplementary estimate
- (b) Discuss the uses and importance of estimate. 10

Or

2. (a) Explain the following : 5 each
- (i) Plinth area rate and Cubical content rate.
 - (ii) Contingencies and Workcharge establishment.
- (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. 3000.00 per sq m.

P. T. O.

- (ii) Extra for water supply and sanitation installation — 5% of building cost.
- (iii) Extra for Special Architectural treatment — $2\frac{1}{2}\%$ of building cost.
- (iv) Extra for internal installations — 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 : 5 each
- (i) CSR.
 - (ii) Factors involved in the rate analysis of an item.
- (b) Do the rate analysis of lime concrete 1 : 2 : 6 in foundation with 40 mm gauge brick ballast unit 1 cum. 10

Or

4. (a) Write the detailed specification for R. C. C. 1 : 2 : 4. 10
- (b) Analyse and drive the rate for cement concrete 1 : 5 : 10 in foundation with brick ballast 40 mm gauge, unit 1 cum. 10
5. (a) Discuss various factors which affect the cost of a work. 10
- (b) Explain the following : 10
- (i) Overhead charges.
 - (ii) Administrative approval or sanction.
 - (iii) Technical sanction.

Or

6. (a) What different percentages are provided for different services in building work ? 6
- (b) Explain in detail how the cost of work can be minimised to a certain limit. 14
7. (a) Define the following terms : 8
- (i) Net income
- (ii) Year's purchase
- (iii) Sinking fund
- (iv) Scrap value
- (b) State and explain various methods of valuation. 12

Or

8. (a) Define depreciation. What are the different methods of calculating depreciation ? 10
- (b) A coloniser intends to purchase a land of 100000 sq m. area located in suburb of a big city to develop it into plots of 700 sqm. each after providing necessary roads and parts and other amenities. The current sale price of small plot in neighbourhood is Rs. 600 per sqm. The coloniser wants a net profit of 20%. Work out the maximum price of the land at which the coloniser may purchase the land. 10
9. Details of a residential building are shown in attached drawing as fig. (1). Estimate the quantities of the following items of work :
- (i) Earth work in excavation. 8
- (ii) Ist class brick work in superstructure. 12

[4]

Or

10. Estimate the cost of earth work for a portion of road for 320 m length from the following data : 20
Formation width of the road is 10 m. Side slopes are 2 : 1 in banking and $1\frac{1}{2}$: 1 : 1 in cutting.

Station	Distance in M.	R. L. of Gr.	R. L. of Formation
25	1000	51.00	50.00
26	1040	50.90	
27	1080	50.50	↓
28	1120	50.80	
29	1160	50.60	downward
30	1200	50.70	gradient
31	1240	51.20	of 1 in 200
32	1280	51.40	
33	1320	51.30	↓

Drawing for question No. IX 6
fig (1)

