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(Pages : 3)

Name.....

Reg. No.....

**EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
DECEMBER 2012**

CE 04 801—QUANTITY SURVEYING AND VALUATION

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Schedule of rate of Kerala PWD and Standard databook of Kerala PWD are permitted.

Answer all questions.

- I. (a) Define the term estimate and state the difference between cost and estimate.
(b) State the methods of measurements of different items of work.
(c) What are the data's required for preparing detailed estimate ?
(d) How will you measure the following items — Earthwork excavation for foundation, Wood work for shutters, RCC for columns, Reinforcement for RCC, Ornamental cornice ?
(e) State how the conveyance of materials is calculated ?
(f) Briefly explain abstract of estimate and state its necessity for civil engineering works.
(g) Distinguish between gross rent and net rent.
(h) How is the rent of a building fixed ?
- (8 × 5 = 40 marks)
- II. (a) Estimate the quantities of the following items of the building shown in Fig. 1 in page 3.
(i) Earth work excavation for foundation.
(ii) PCC 1 : 4 : 8 for foundation.
(iii) Wall plastering inside and outside.
- Or
- (b) A cement concrete road is 800 m long, 8 m wide and 15 cm thick over the sub base of 10 cm thick gravel. Prepare a detailed estimate for the road adopting rates from SOR.
- (1 × 30 = 30 marks)
- III. (a) Write down the detailed specification for the following item:
(i) Plastering under side of roof slab with cement mortar 1 : 3 mix, 9 mm thick.
(ii) Damp proof course 2.5 cm thick in CC 1 : 1.5 : 3.

Or

(b) Write down the detailed specification for the following item:

- (i) Whitewashing two coats with white cement.
- (ii) Flooring- 25 mm cement plastering over 75 mm PCC 1 : 3 : 6.

(1 × 10 = 10 marks)

IV. (a) (i) Work out the unit price of PCC 1 : 4 : 8 using 40 mm broken stone. Use SOR and Databook. Provide necessary lorry conveyance of 20 km for each item.

(ii) Prepare a schedule of bars for a slab of clear room size 3m × 6 m. Thickness of wall is 20 cm and thickness of slab 10 cm. Reinforcement consist of M.S bar of 12 mm dia at 15 cm c/c and bent up alternate bar at 1/5 span as main reinforcement, and 8 mm dia at 18 cm as distribution reinforcement.

Or

(b) (i) Work out the unit price of Random rubble masonry in Cement mortar 1 : 8. Use SOR and Databook. Provide necessary lorry conveyance of 15 km for each item.

(ii) Prepare a schedule of bars for a column of size 3.6 m × 0.3 m × 0.6 m. The main reinforcement is 6 numbers of 20 mm dia and ties of 8 mm dia at 150 mm spacing. Also find the total cost of reinforcement required as per prevailing market rates.

(1 × 10 = 10 marks)

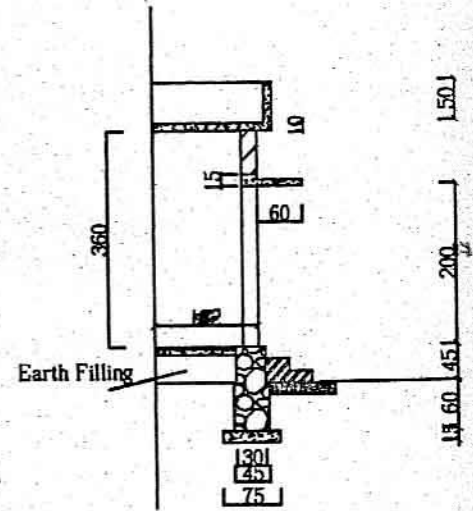
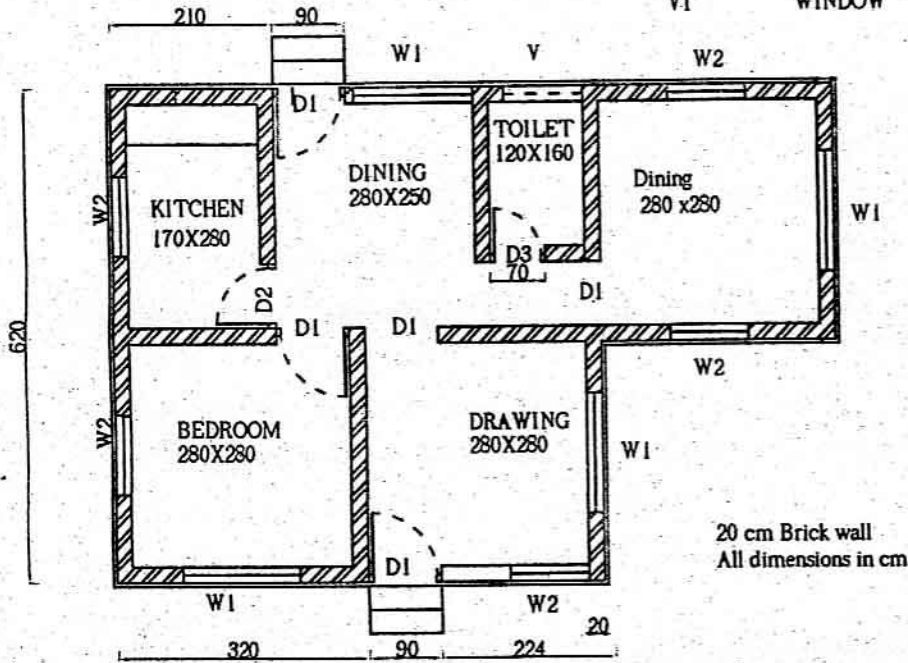
V. (a) A two-storied building is standing on a plot of land measuring 600 sqm. The plinth area of each storey is 300 sqm. The building is of RCC structure and future life may be taken as 60 years. The building fetches a gross rent of Rs. 3,000 per month. Work out the capitalized value of the property on the basis of 5% net yield, for sinking fund 4% interest may be assumed. Cost of land may be taken as Rs. 3,000 per sqm. Assume that Municipal tax is 25% of gross rent, insurance premium 2% of gross rent and management charges as 6 % of gross rent.

Or

(b) A building situated in the side of a main road of a city on a land of 600 sqm. The building is of first class type and provided with water supply and electrical fittings and the age of the building is 30 years. Determine the value of the property.

(1 × 10 = 10 marks)

INDEX MARK	ITEM	SIZE	TYPE
D	DOOR	90 X 200	PANELLED
D2	DOOR	90 X 200	PANELLED
W1	WINDOW	150 X 120	GLAZED
W2	WINDOW	100 X 120	GLAZED
V1	WINDOW	50 X 120	GLAZED



Typical SECTION AA

PLAN