Total No. of Questions : 12] SEAT No. :

P3029 [Total No. of Pages : 6

[5354]-515
B.E. (Civil)
QUANTITY SURVEYING CONTRACTS AND TENDERS
(2012 Pattern)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:-

1) ***Answer Q.No.1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10, Q11 or Q12.***
2) ***Figures to the right indicate full marks.***
3) ***Draw neat diagram wherever necessary.***
4) ***Use of logarithmic table, slide rule and electronic pocket calculator are allowed.***
5) ***Assume suitable data if necessary, stating it clearly.***

Q1) a) Define Estimating and costing with respect to Civil Engineering works. State the purpose of estimation. **[3]**

b) Explain the conditions under which approximate estimate is prepared. Explain any one method of approximate estimate. **[3]**

OR

Q2) a) Determine approximate estimated cost of a residential building, using following data. **[4]**

i) Built up area of the proposed building = 350 Sq.m.

ii) Cost of construction for a building of built up area 300 Sq.m and with same specification as proposed building constructed 3 years before = Rs 16,00,000/-.

iii) Assume 24 % rise in construction cost over rates before three years.

iv) Assume a provision of 15% of construction cost for water supply, drainage and electrification

b) State the following sentences as true or false for any two of the following with appropriate reasons. **[2]**

i) Generally construction rate for ground floor and first floor remains same.

P.T.O.

ii) Rate for excavation in a given soil for foundation trenches is higher than rate for open excavation.

iii) The rate for item of RCC in footing, beam, slab, chajja and staircase for given grade of concrete remains same.

Q3) Refer figure 1, the schedule for openings and other details are as given below.

i) Doors, D = 1.2m × 2.lm; windows, W = 1.5m × l.2m.

ii) Lintel size: 0.23m × 0.23m for main wall and lintel of size: 0.115m × 0. 115 m for partition walls.

iii) Assume 15cm bearing on both sides for lintels.

iv) Ground beam (GB) and plinth beams (PB) are provided at same level.

v) Floor to floor height = 3.0 m.

Determine quantities of following items

a) Brick Masonry in C.M (1:6) in superstructure for main walls and half brick thick brick masonry in C.M (1:4) in partition wall. **[4]**

b) 20 mm thick sand faced cement plaster for external surface of the walls. **[2]**

c) 12 mm thick cement plaster for internal surface of the walls. **[2]**

OR

Q4) Figure 1 shows plan and section of a residential building. Determine quantities of following items.

a) RCC M20 in footing **[2]**

b) RCC M20 in columns **[2]**

c) RCCM20 in beam (ground beams and plinth beams) **[2]**

d) Steel reinforcement if percentage of steel in footing is 0.80 %, for column is 2 % and for beam is 1.5%. **[2]**

Q5) a) Differentiate between the following **[4]**

i) Scrap value and salvage value

ii) Cost, price and value

b) What is deprecation and explain the difference between depreciation and obsolescence? **[2]**

OR

Q6) **Figure 2** shows the plan of a piece of land fronting 60m wide national highway. The land is suitable for developing commercial activities like hotels, commercial complex etc. Determine value of the land by belting method. Use following data. **[6]**

a) Depth of front belt: 100m

b) Present market rate for front belt: Rs 1000/m^2.

Q7) a) Explain the factors to be considered while determining rate per unit of an item. **[4]**

b) The quantity of stone masonry in C.M.(1:6) for plinth and foundation is 115 Cu.m. Determine the quantities of basic materials required to complete the work. **[8]**

c) Draft detailed specification for the item of providing and laying brick masonry (1:6) in superstructure with reference to **[6]**

i) Different materials, quality and testing,

ii) Method of execution and workmanship and

iii) Mode of measurement and payment.

OR

Q8) a) What is task work? Explain how the task work is useful in rate analysis of an item. **[4]**

b) The quantity of R.C.C (1:1.5:3) work for a residential building is 36 Cu.M. Determine the quantities of basic materials required to execute the RCC work. **[6]**

c) Draft a detailed specification for the item of providing and laying U.C.R.masonry (1:6) in plinth and foundation with reference to **[8]**

i) Different materials, quality and testing,

ii) Method of execution and workmanship and

iii) Mode of measurement and payment.

Q9) a) Explain the P.W.D.procedure for execution of minor works. **[4]**

b) Explain the purpose of administrative approval and technical sanction during execution of civil engineering works. **[6]**

c) Explain various forms of B.O.T. tenders. **[6]**

OR

Q10)a) Explain the unbalanced tender with suitable example. **[4]**

b) Write short note on **[12]**

i) Security Deposit

ii) Earnest Money Deposit

iii) Prebid conference

iv) Liquidated damages

Q11)a) Compare Lump Sum Contracts and Item Rate Contracts with reference to **[4]**

i) nature of agreement,

ii) contract documents and

iii) advantages

b) Explain the followings with suitable examples, **[12]**

i) Valid contract

ii) Null or void contract

iii) Lump sum contract

iv) Termination of contract

OR

Q12)a) State the different types of civil engineering contract and hence explain any one. **[6]**

b) Explain Arbitration and its need. **[4]**

c) What are the different types of Arbitration and explain any one type? What is the advantages of Arbitration over court decision. **[6]**

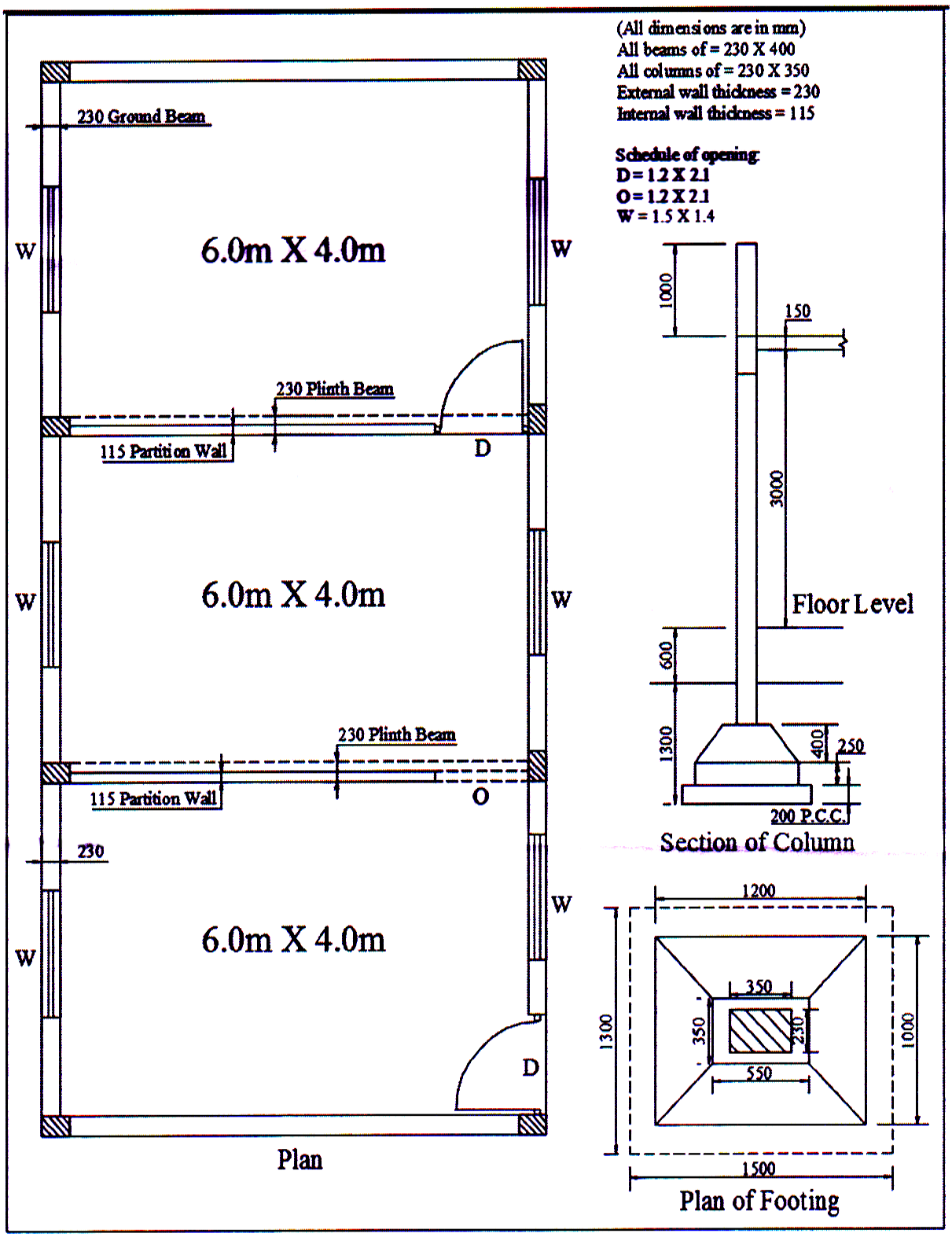

Figure 1 (All dimensions are in meters)

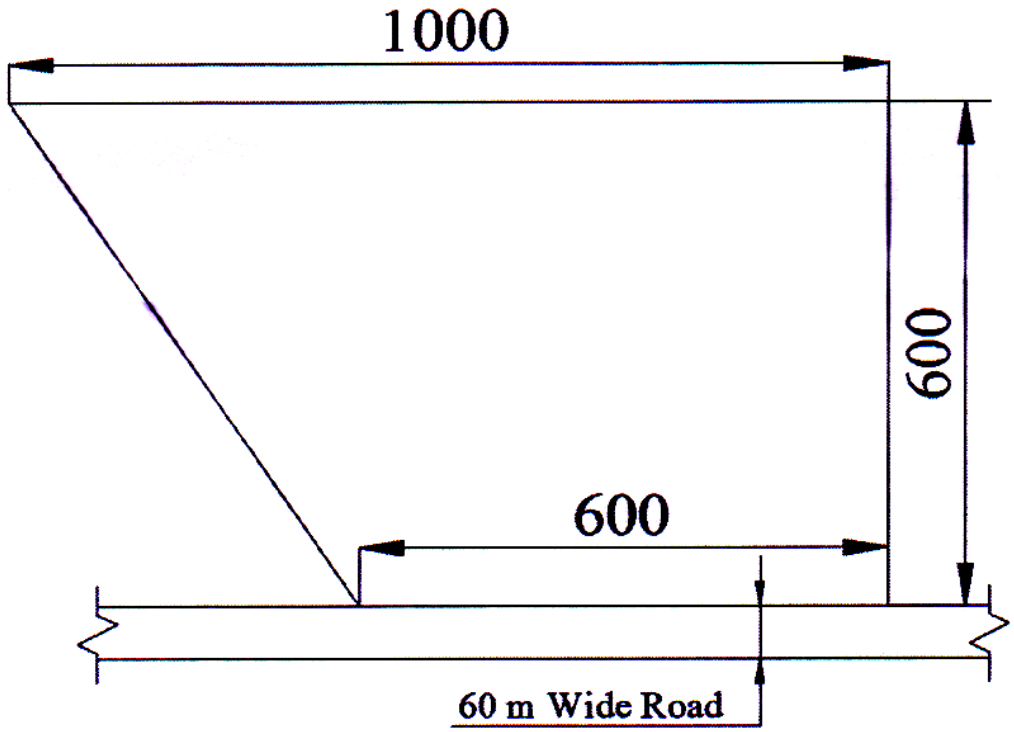

Figure 2 (All dimensions are in meters)