

Total No. of Questions : 12]

SEAT No. :

P5139

[Total No. of Pages : 5

[5561]-515

B.E. (Civil)

**QUANTITY SURVEYING CONTRACTS AND TENDERS  
(2015 Pattern)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Solve Q.No.1 or 2, 3 or 4, 5 or 6, 7 or 8, 9 or 10, 11 or 12.*
- 2) *Answer to the two sections must be written in separate answer book.*
- 3) *Figures to the right indicate full marks.*
- 4) *Draw neat diagram wherever necessary.*
- 5) *Use of logarithmic table, slide rule and electronic pocket calculator are allowed.*
- 6) *Assume suitable data if necessary, stating it clearly.*

- Q1)** a) Explain estimation, quantity surveying and requirements of an estimator. [3]  
b) What is Bill of quantity and prepare a standard format for billing. [3]

OR

- Q2)** An five storied office building is to be constructed to have a total carpet area of 2500 m<sup>2</sup>. The following detail may be assumed to prepare a preliminary estimate. [6]

- a) Area occupied by wall = 10%
- b) Area occupied by corridor, water closet staircase etc which are used for general utility = 30%.
- c) Additional cost for water supply and sanitary connection = 8%
- d) Additional cost for electrical connection & fitting = 10%
- e) Additional cost for architectural finishes = 1%
- f) Work charge establishment & contingency = 8.5%

- Q3)** A small RCC framed building is shown in fig 1. Work out the following quantity by detailed estimate.

- a) Earthwork excavation for column footing and panel wall. [3]
- b) Column footing. [2]
- c) Brick wall in super structure. [3]

OR

**P.T.O.**

**Q4)** Conduct the detailed estimate for the RCC roof slab shown in fig 2 and draw the bar bending schedule. [8]

**Q5)** Work out the rate per unit of the following item of work. [6]

- a) First class brick work for super structure in cm 1:6
- b) Cement plastering to wall in cm 1:4

OR

**Q6)** a) Explain how specification is necessary to maintain quality in construction. What are the different types of specification? [3]

- b) Explain the terms Standard specification and manufacturer specification. State the advantage and disadvantage of manufacturer specification. [3]

**Q7)** a) Explain various factors affecting value of a property consisting of land and building. [4]

- b) Explain how depreciation affects the value of a property. Explain the percentage method or declining balance method of calculating depreciation. [6]

- c) A building is constructed at a cost of 5 Lakhs. The life of building may be assumed to be 80 years. and the scrap value of building to be 10% of building cost. Determine the depreciation in 40<sup>th</sup> year. Use straight line method, constant percentage method and sinking fund method assuming 8% compound interest. [8]

OR

**Q8)** a) Explain concept of free hold and lease hold property. What are the reasons under which the property is leased and what are the liabilities of lessor and lessee? [6]

- b) Explain with example [6]

- i) Earned value,
- ii) Dual rate Y. P &
- iii) Obsolescence

- c) A plot of land is situated along a highway. The plot has an area of 20,000 sq-m with a single frontage of width 40m along highway. The front 30m along the plot from the edge of highway is kept reserved for providing gardening and other green purpose, also the remaining 3 sides of the plot is prohibited from any sort of construction under law. Assuming that the prevailing rate of land varies between Rs 20/ sq-m to Rs 25/sq-m. Find the value of the property. [6]

- Q9) a)** Draft a brief tender notification to execute the construction of public building worth 50 lakh to be completed in 24 calendar months involving prequalification of tenders. [6]
- b) What is comparative statement and its necessity?. Explain the procedure for preparing the comparative statement. [4]
- c) Before working out a tender and submitting it, what information and data needs to be collected and ascertained. [6]

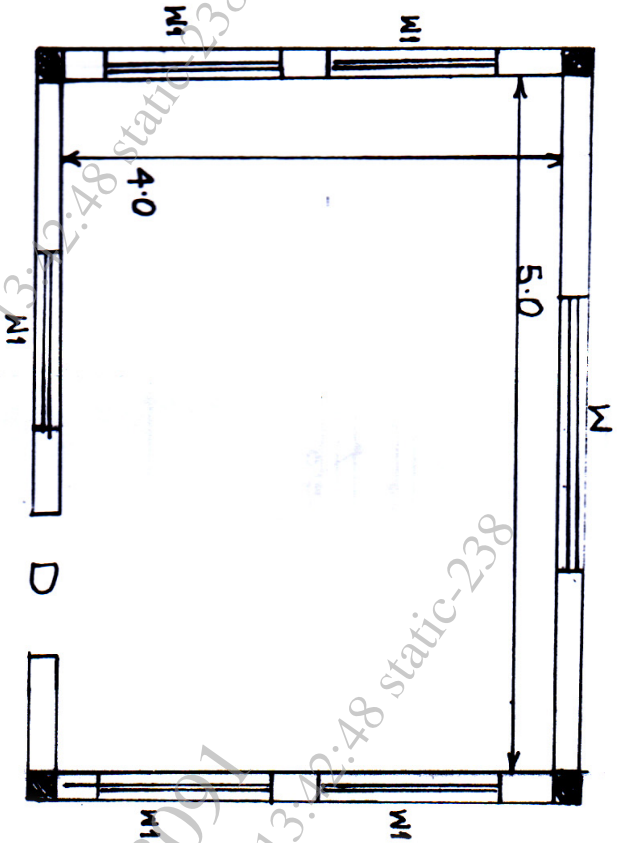
OR

- Q10)a)** Explain the terms earnest money deposit and security deposit with respect to [8]
- i) Meaning/definition
- ii) Reason to collect it from contractor
- iii) Mode of collection and approximate amount in terms of percentage of estimated cost
- iv) Refund to contractor
- b) Explain the following : [8]
- i) Prequalification of tender,
- ii) 3 Bid system of tender,
- iii) Unbalanced tender with suitable example,
- iv) Administrative approval and Technical sanction for any PWD work

- Q11)a)** What are the essential requirements of valid contract and explain any one. [4]
- b) Explain percentage contract and Item rate contract giving their advantages and disadvantages. [6]
- c) Can a contract be terminated or discharged, if so what are the reason for termination. Explain any two ways in which the contract can be terminated. [6]

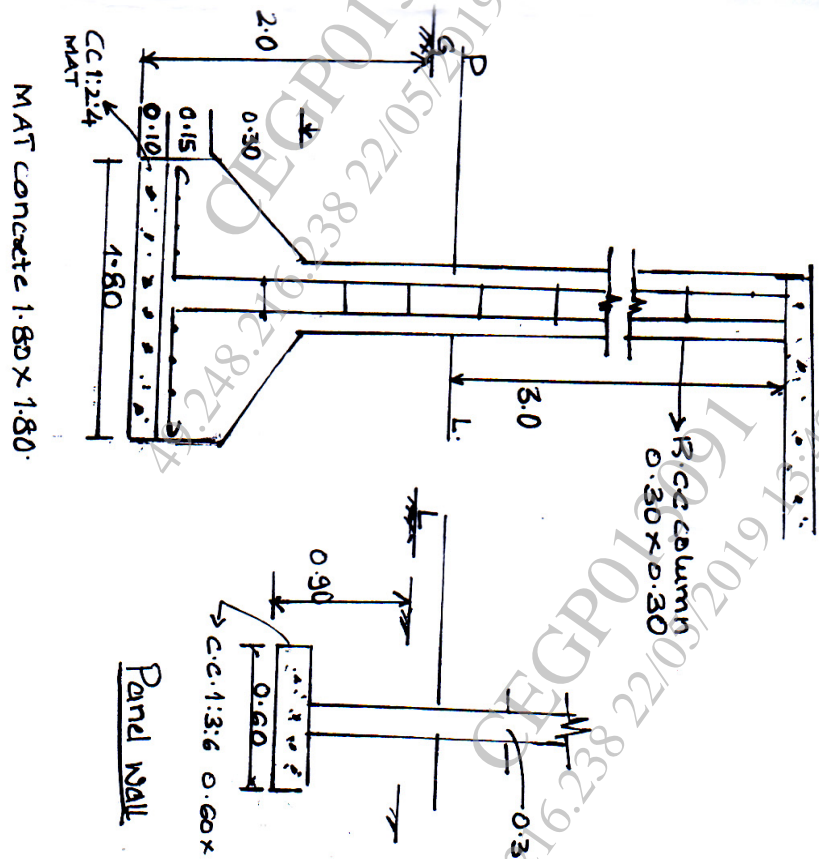
- Q12)a)** Explain the term arbitration, its objective and advantages. Which are the matter that can be and cannot be referred to arbitration under the provision of Arbitration act. [6]
- b) Explain the process of arbitration and award by an arbitrator. Explain powers of court to modify the arbitration award. [4]
- c) Explain any two of the following : [6]
- i) Important factors influencing the value of building
- ii) Procedures to be followed in opening of tender and security of tender
- iii) Departmental method of execution of work

Q.NO 3



Door - D =  $0.90 \times 2.10$   
 Window - W =  $1.80 \times 1.50$   
 $W_1 = 1.40 \times 1.50$   
 R.C.C Column =  $0.30 \times 0.30$

Fig. 1



All Dimension in metre

Q. NO 4

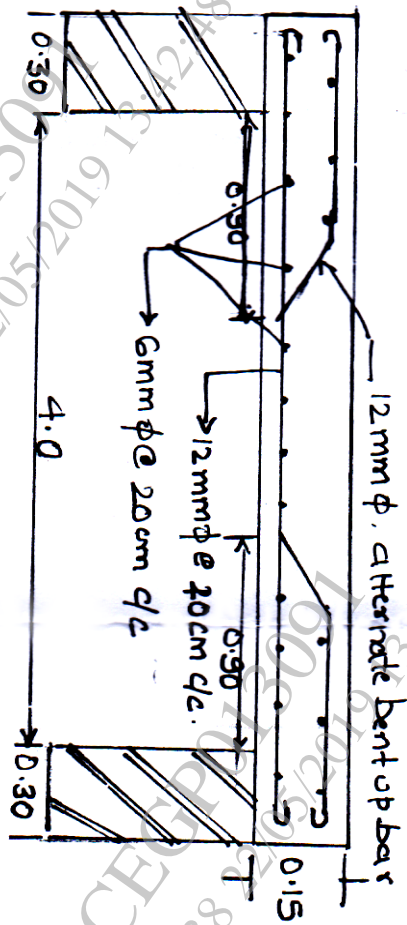


Fig 2

(All Dimensions in meters)