

Total No. of Questions :12]

SEAT No. :

**P3247**

**[5670]-515**

[Total No. of Pages : 4

**B.E. (Civil)**

**QUANTITY SURVEYING CONTRACTS AND TENDERS**

**(2015 Pattern) (Semester - II) (401008)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Solve Q1 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 diagrams whenever 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)** Explain in brief the following terms:

- i) Work Charged Establishment
- ii) Contingencies. [3]

b) State the detailed classification of Estimate. What is supplementary estimate and when is it prepared? [3]

OR

**Q2) a)** State the units of measurement of any two the following items of work [2]

- i) DPC
- ii) Skirting
- iii) 100mm thick Coping over the parapet wall.

b) Determine approximate estimated cost of a hospital building, using following data. [4]

- i) Number of beds in proposed Hospital = 135 Nos.
- ii) Cost of construction for a Hospital building of 125 beds and with same specification as the proposed hospital constructed 5 years before = Rs 26,00,000/-.
- iii) Assume 20% rise in construction cost over rates before three years.
- iv) Assume a provision of 12% of construction cost for water supply, drainage and electrification.

**P.T.O.**

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

- i) Doors,  $D=0.9\text{m} \times 2.1\text{m}$ ; windows,  $W = 1.2\text{m} \times 1.2\text{m}$ .
- ii) Lintel size :  $0.23\text{m} \times 0.23\text{m}$  for main wall and lintel of size:  $0.115\text{m} \times 0.23\text{m}$  for partition walls.
- iii) Assume  $0.23\text{m}$  bearing on both sides for lintels.
- iv) Floor to floor height =  $3.2\text{m}$ .

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 (1:6) in partition wall. [4]
- b)  $15\text{ mm}$  thick sand faced cement plaster for external surface of the walls. [2]
- c)  $12\text{ mm}$  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) RCC M20 in beam (ground beams and plinth beams) [2]
- d) Steel reinforcement if percentage of steel in footing is  $1\%$ , for column is  $2\%$  and for beam is  $1.5\%$ . [2]

**Q5)** a) What is Rate Analysis? Explain factors governing rate per unit of an item. [2]

- b) The quantity of II<sup>nd</sup> Class Burnt Brick masonry in C.M.(1:5) in Super structure is  $22.5\text{ cu.m}$ . Determine the quantities of basic materials required to complete the work. [4]

OR

**Q6)** a) What is the importance of specification in Civil Engineering works. State the important factors affecting detailed specification. [2]

- b) Draft a detailed specification for the item of providing Corrugated GI sheet Roofing with reference to [4]
  - i) Different materials and quality,
  - ii) Method of execution and workmanship and
  - iii) Mode of measurement and payment.

- Q7) a)** Differentiate between the following [6]
- i) Depreciation and Obsolescence.
  - ii) Monopoly Value and Sentimental Value.
  - iii) Salvage value and Sentimental value

b) Define the terms Years Purchase and Sinking Fund? [4]

c) A residential building is constructed on a plot measuring 525 sq. m. The construction cost of the building is Rs. 1,75,000.00. The land was purchased by the owner at Rs. 145.00 per sq. m.. The total outgoings including sinking fund is Rs. 11,500.00. Work out the gross and net rent of the property, if the owner desires 6.5% return on the construction cost and 5% on the value of the land. [8]

OR

**Q8) a)** What are the different types of values? Explain market value, factors affecting market value and any 5 factors affecting market value of property. [8]

b) What are the different methods of valuation of open land and building? Explain the belting method of valuation of a plot. [4]

c) The depreciated replacement value of building has to be found with following details. [6]

i) Total built up area = 400 m<sup>2</sup>

ii) Age of building = 20 years

iii) Life of building = 80 years

iv) Scrap value of after useful life = 10%

v) % for sinking fund = 5%. Assume a rate of construction as Rs 2000/- per sq-m.

**Q9) a)** Explain what you understand by administrative approval and technical sanction. [6]

b) Explain the Piece Work and Rate list method of execution of PWD work. [4]

c) Define Global Tender. State the procedure for Global Tendering. [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) Pre bid 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) Defect Liability Period.
- ii) Null Contract.
- iii) Retention Money.
- iv) Secured Advance.

OR

**Q12)a)** Define a Valid Contract as per Indian Contract Act. State the objectives and essentials of a Valid Contract. [6]

b) What qualities should a Arbitrator have? When can a Arbitration challenged in the court. [4]

c) What are the different types of Arbitration and explain any one type? [6]

GROUND BEAM = 0.30 x 0.30 m  
 PLINTH BEAM = 0.30 x 0.35 m  
 COLUMN = 0.30 x 0.38 m

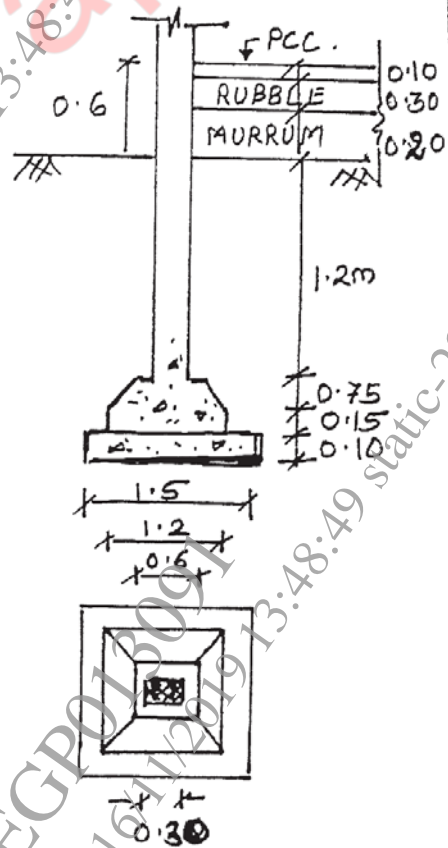
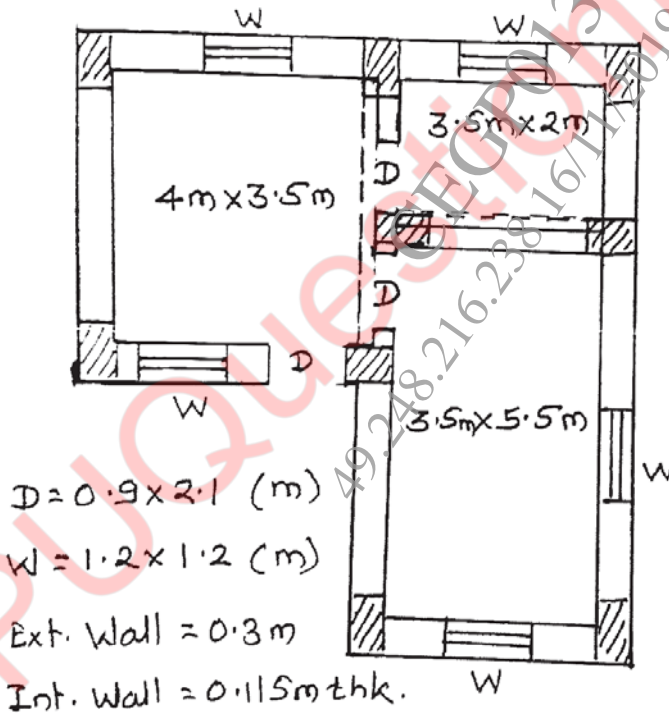


FIG. 1 (ALL DIA. IN METRS.)

