Total No. of Questions :12]

SEAT No. :

P2963

[Total No. of Pages :6

[5154] - 515

B.E. (Civil)

QUANTITY SURVEYING, CONTRACTS AND TENDERS

(2012 Course) (401008) (End Semester) (Semester-II)

Time : 2½ Hours] *[Max. Marks :70*

Instructions to the candidates:

1) ***Answer Q.No. 1 or 2, 3 or 4, 5 or 6, 7 or 8, 9 or 10, 11 or 12.***
2) ***Neat diagrams should be drawn wherever necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Use of electronic pocket calculator is allowed.***
5) ***Assume suitable data, if necessary.***

Q1) a) A brick wall is constructed to a length of 5m long, 3m height and 30 cm thick . Estimate the quantities of brick work and plastering required. Calculate the cost if the rate of brickwork is Rs.4900 per cu.m and of plastering is Rs.345 per sq.m. **[4]**

b) A client requires the estimation of his proposed building having a plot area of 120 m^2, and a built up area of 100 m^2 for taking loan from a bank. Explain the complete process of preparing the estimation for his building. **[2]**

OR

Q2) a) What are the different methods of taking out quantities for preparing estimates? **[3]**

b) Explain Bay method and Service unit method for preparing approximate estimate. **[3]**

Q3) a) What are Provisional sum & prime cost items. **[3]**

b) What is the objective of preparing preliminary estimate and what are the documents to be provided with a preliminary estimate and explain detailed estimate. **[3]**

OR

P.T.O.

Q4) a) Explain in detail the approximate estimate for Road work. **[3]**

b) A building was constructed to have a plinth area of $75m^2$. The total cost of construction was Rs. 11,62,500/-. The building has an height of 3.5m from ground level to roof top and parapet wall has an height of 75cm. Calculate the cost of similar building in the same locality to have an plinth area of 120 m^2 by **[3]**

i) Plinth area method &

ii) Cubic content (volume rate) method.

Q5) The plan and elevation for the column footing for an RCC framed structure is shown in fig. 2.a & 2.b. Work out the quantities for the following item of works **[8]**

a) Earthwork excavation for foundation.

b) C:C 1:2:4 for column footing.

OR

Q6) a) Work out the quantities for the following item of works by centre line method from the plan provided in fig 1.a &1. b.

i) Internal plastering. **[2]**

ii) RCC lintel provided throughout the walls of the building. **[2]**

b) Define valuation & what are the important factors influencing the value of building? **[2]**

Differentiate between **[2]**

i) Scrap Value and Salvage value.

ii) Capitalized value and Book value.

Q7) a) What are the objects of specification & characteristics of good specification? **[4]**

b) Briefly explain **[6]**

i) General or brief specification.

ii) Detailed specification.

iii) Standard specification.

c) Write a detailed specification for **[8]**

i) Damp proof course and,

ii) BBM in CM 1:6 for super structure

OR

Q8) a) Work out the quantity of material required for **[6]**

i) BBM in super structure - 1cu-m.

ii) Plastering to walls and ceiling 12 mm thick - 10 sq-m.

b) Explain how lead and lift, cost of material affect the rate of an item of work. Will the Centering, shuttering, scaffolding affect the rate of item of work, if so explain how. **[4]**

c) Using the standard format, conduct the rate analysis for the following item of work **[8]**

i) Cement concrete 1:2:4 for RCC Roof slab with 1.5% steel

ii) 2.5 cm thick Cement concrete 1:3:6 flooring

The following rates for material & labour may be considered for rate analysis.

i) Cement = Rs. 300/bag,

ii) Sand = Rs. 1400/m^3

iii) Aggregate = Rs. 1400/m^3

iv) Bricks = Rs. 4500/1000No,

v) Steel = Rs. 38,500/ MT.

Labour rate/day

i) Head mason = Rs. 600/-,

ii) Mason = 450/-,

iii) Mazdoor = Rs. 350/-,

iv) Bhisti/Helper = Rs. 300/-

Q9) a) What is a tender notice? Why and when the earnest money deposit are collected? An organization wish to construct a hospital building. The construction is estimated to be of Rs. 2.50 crore. The work is to be completed in 15 months. Prepare a tender notification to be published in national news paper, giving all details, inclusive of pre qualification. **[8]**

b) Explain the following: **[8]**

i) Global Tender.

ii) Open Tender.

iii) Limited Tender.

iv) Informal Tender.

OR

Q10)a) Write brief note about the P.W.D. & its branches for carrying out different types of work related to public interest. Explain the working responsibilities of **[4]**

i) Superintending Engineer,

ii) Executive Engineer &

iii) Junior Engineer.

b) Explain the process & significance of Administrative and Technical with an example. **[6]**

c) Explain the classification of works based on likely expenditure. What are the different methods of executing P.W.D works & explain Rate list method of execution of work. **[6]**

Q11)a) Explain the necessity for making contract. What are the type of contract & what are the informations that a contract document should a contain?**[6]**

b) Explain void, voidable valid contract. What are the essential requirements of valid contract as per the ICA (1872). **[6]**

c) What are the types of termination of contract? What are the types of penalties that are imposed on a contract and why are they imposed? **[4]**

OR

Q12)a) What is meant by Arbitration and what is its necessity in Civil Engineering & construction works. What are the types of Arbitration and explain any one. **[6]**

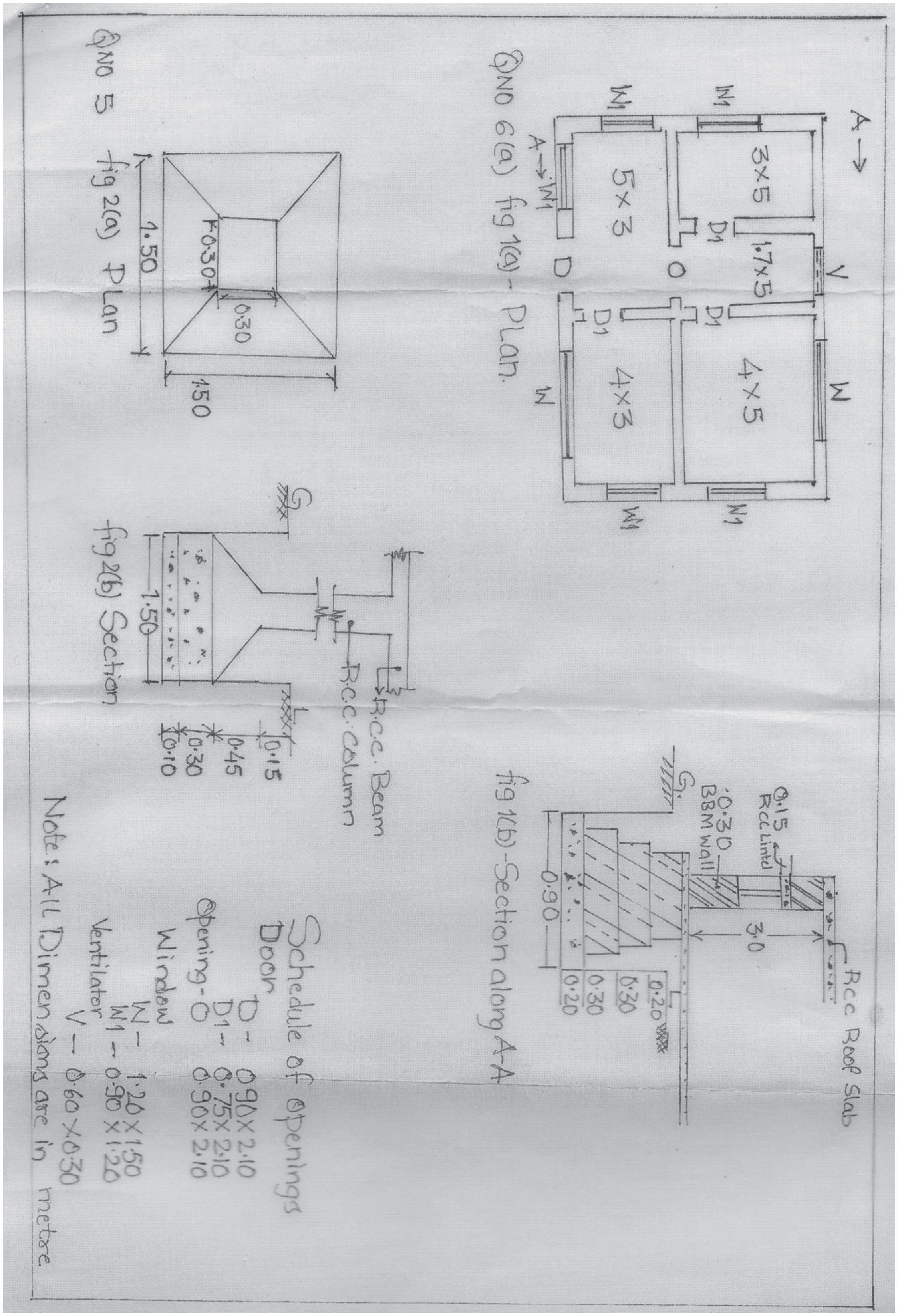
b) What are the essentials for: **[6]**

i) Qualification,

ii) Appointment of arbitrator,

iii) Powers and duties of arbitrator as per IA & CA(1996)

c) Explain the advantages & disadvantages of arbitration. **[4]**


Q.No 6 (a) fig 1(a) - Plan.
A →
3×5
1.7×5
4×5
5×3
4×3
D1
D
O
V
W
W1
fig 1(b) - Section along A-A
0.15 RCC Lintel
0.30 BBM wall
RCC Roof Slab
3.0
0.20
0.30
0.30
0.20
0.90
G.L.
Schedule of openings
Door
D - 0.90×2.10
D1 - 0.75×2.10
Opening - O 0.90×2.10
Window
W - 1.20×1.50
W1 - 0.90×1.20
Ventilator
V - 0.60×0.30
Note: All Dimensions are in metre
Q.No 5 fig 2(a) Plan
1.50
0.30
0.30
fig 2(b) Section
R.C.C. Beam
R.C.C. Column
0.15
0.45
0.30
0.10