Total No. of Questions : 8]

SEAT No. :

PE-2155

[Total No. of Pages : 4

[6584]-54
B.E. Civil
QUANTITY SURVEYING CONTRACTS AND TENDERS
(2019 Pattern) (Semester - VIII) (401012)

Time :3 Hours] *[Max. Marks : 70*

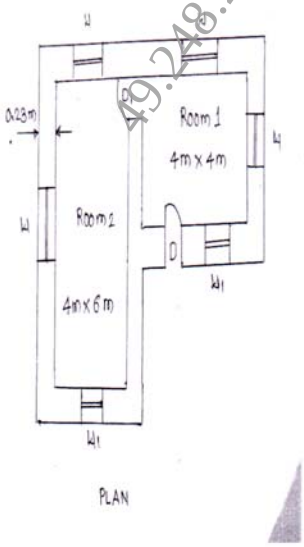
Instructions to the candidates :

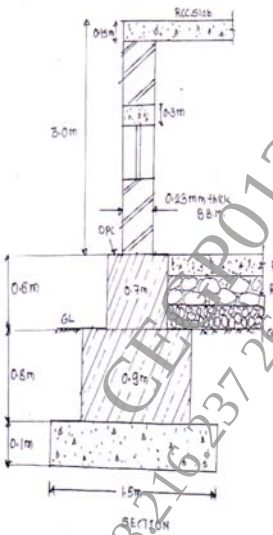
1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to Right indicate full marks.***
4) ***Use of electronic pocket calculator is allowed.***
5) ***Assume suitable data if necessary.***

Q1) a) Explain different methods of taking out quantities. Explain any one with example. **[6]**

b) Figure shows plan and section of residential building, Determine the quantities of following item By PWD Method (Assume any suitable data) **[12]**

i) Excavation in foundation
ii) PCC in Foundation
iii) UCR masonry in CM (1 : 6) in foundation
iv) CR masonry in CM (1 : 6) in foundation
v) Damp proof course 3 cm thick

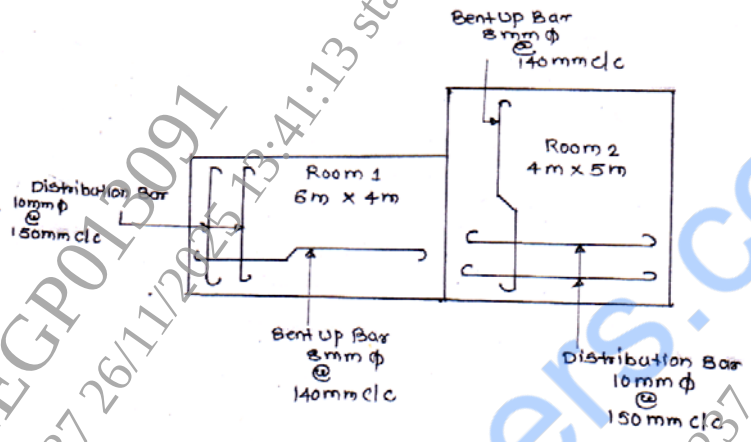




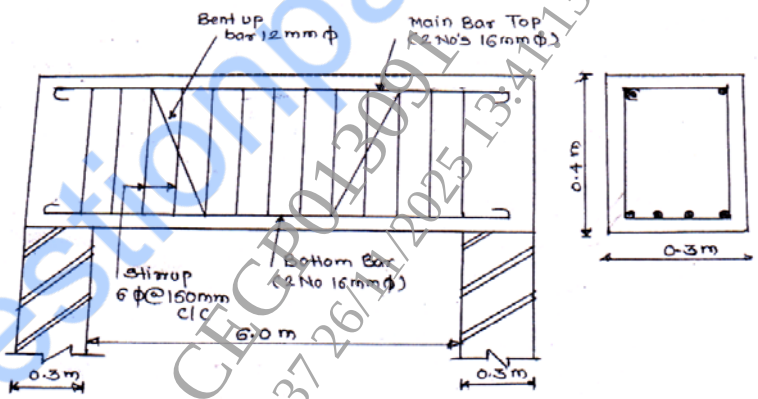
P.T.O.

OR

Q2) a) Determine quantity to steel reinforcement in slab for both room from figure clear cover on both side 20 mm (Assume any suitable data) **[9]**



b) R.C.C simply supported beam of side 300 mm × 400 mm is shown in figure The span of beam is 6.0 m and end bearing (both sides) is 30 cm. calculate total quantity of steel reinforcement. (Assume any suitable data) **[9]**



Q3) a) Differentiate between following methods : **[8]**

i) Mid sectional area method & Mean Sectional area method.

ii) Trapezoidal formula method & Prismoidal formula method.

b) Calculate the quantities of Earthwork is cutting and filling for road with following data : **[10]**

i) Formation width of road is 10 m

ii) Slope in cutting 1 : 2

iii) Slope in Banking 2 : 1

Chainage	0	30	60	90	120
GL in m	400	398	50.50	396	392
FL in m	397	396	395	394	393

OR

Q4) a) List out different methods to workout Earth work quantity for road work. Explain any one method. **[8]**

b) Prepare an estimate of a pipe culvert for following item as shown in Fig. 4 (a) and Fig. 4(b) **[10]**

i) Excavation

ii) Earth filling

iii) Rubble soling

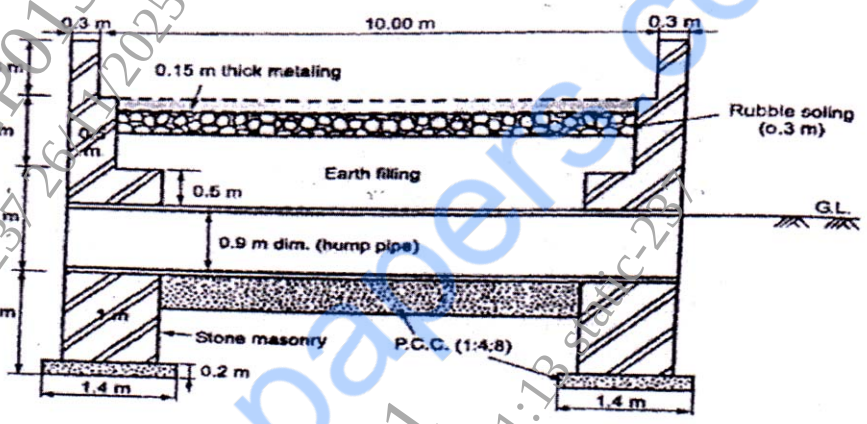


Fig 4(a)

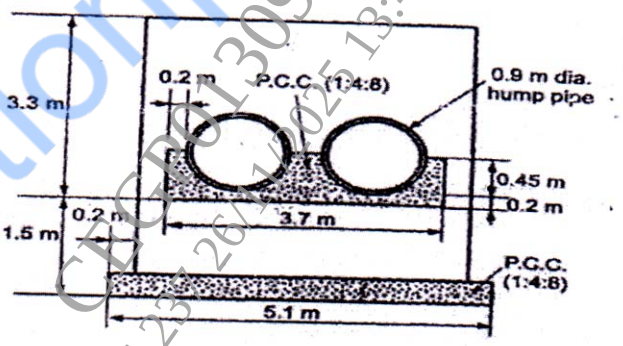


Fig 4(b)

Q5) a) Prepare a rate analysis of 12mm thick cement plaster (1:4) **[9]**

b) What is the necessity of drafting specification for Civil engineering work. Explain **[8]**

i) General specification.

ii) Detailed specification.

OR

Q6) a) Prepare a rate analysis of Cement concrete 1:2:4 for R. C. C. Roof Slab with 2.5 % steel. **[9]**

b) Prepare a detailed Specification for plain cement concrete & Brick Masonry in Superstructure. **[8]**

Q7) a) Why do depreciation occur in the valuation of property? What are the different methods of calculating depreciation. Explain any one method of calculating depreciation stating formula used, merits & demerits. **[6]**

b) Explain with example five purpose of valuation. **[5]**

c) A building is constructed at a cost of 10 lakhs. The life of building may be assumed to be 90 years and the scrap value of building to be 10% of building cost. Determine the depreciation in 60th year. Use straight line method, sinking fund method assuming 10% compound interest. **[6]**

OR

Q8) a) Differentiate between Cost, Price & Value with suitable example. **[6]**

b) Define the following terms : **[5]**

i) Dual rate Year purchase

ii) Sinking Fund

iii) Annuity

iv) Obsolescence

v) Free hold Propert

c) The depreciated replacement value of building has to be found out with the following data : **[6]**

i) Total builtup area = 1500 sq-m

ii) Age of building = 50 years

iii) Life of building = 100 years

iv) Scrap value after useful life = 10%

v) Percentage for sinking fund = 8%

Assume rate of construction as Rs. 4000/sq-m

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