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**B.E. (Civil)**

QUANTITY SURVEYING CONTRACTS AND TENDERS
(2019 Pattern) (Semester - VIII) (401012)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*
4) *Use of electronic pocket calculator is allowed.*
5) *Assume suitable data, if necessary.*

Q1) a)   Fig 1 (a) and (b) shows plan and section of residential building, Determine the quantities of following item. **[8]**

   i)   Excavation in foundation

   ii)   UCR masonry in CM (1 :6) in foundation

   iii)   Damp proof course

Fig 1 (a)

fig 1 (b)

P.T.O.
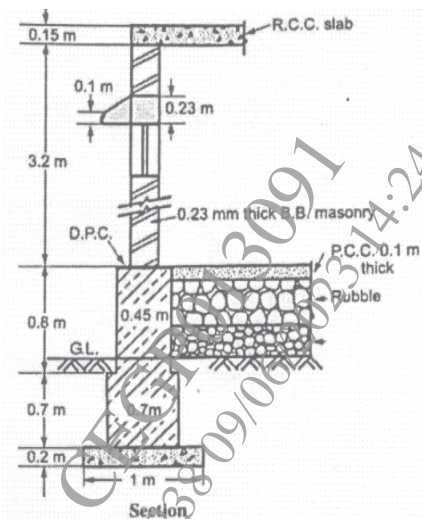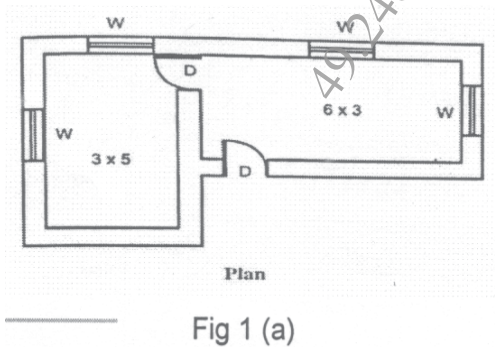
b) Determine quantity to steel reinforcement in slab for both room from fig no 2 in 8 mm ó bar provided @ 120mm c/c along short and long span with alternate bar bent up at support. Determine the quantity of reinforcement. **[9]**

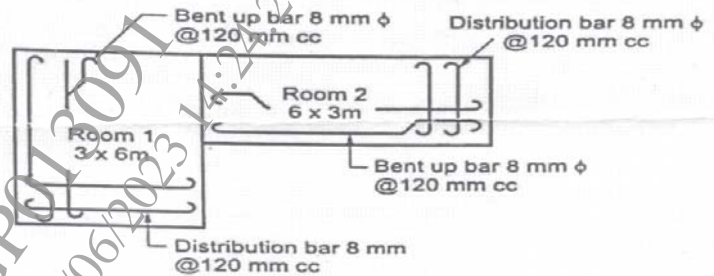

Fig no 2

OR

Q2) a) Explain in detail concept of long wall short wall and Centre line method with the help of example. **[8]**

b) The plan and elevation for the column footing for an R.C.C. framed structure is shown in Fig.3 (a) and (b). work out the quantities for the following item of works. **[9]**

   i)   Earth 1 work excavation for foundation
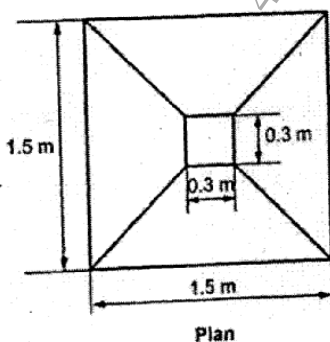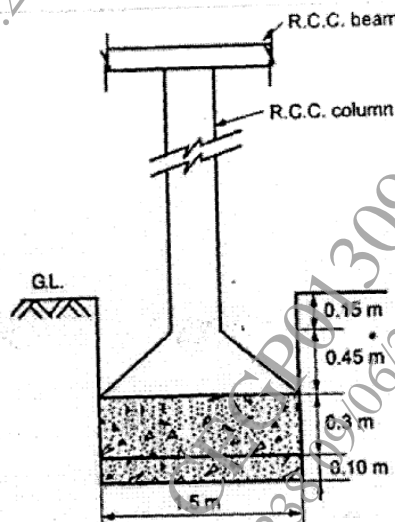
   ii) C.C.(1:2:4) for column footing.

Fig 3 (a)

fig 3 (b)

Q3) a) Calculate for an embankment by mean area method, workout the quantities of earthwork for an embankment 100 m long and 10 m wide at a top. Side slope is 2:1 and depth of each 20 m and are 0.6, 1.2, 1.4, 1.6, 1.5m. **[8]**

b) Prepare an estimate of a pipe culvert for following item as shown in Fig. 4 (a) and Fig. 4(b) **[9]**

    i) Excavation

    ii) Earth filling

    iii) Rubble soling

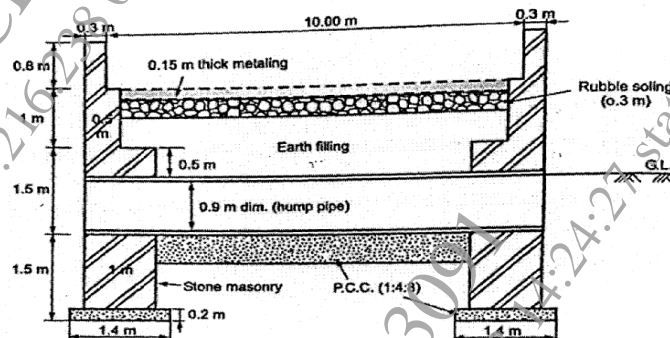   iv) P.C.C. (1:4:8) for foundation and below pipes
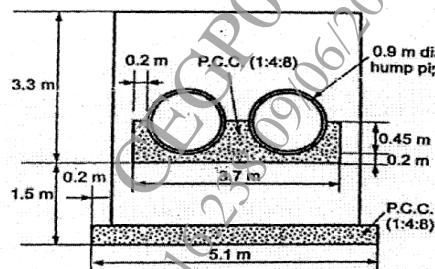

Fig 4(a)

Fig 4(b)

OR

Q4) a) Calculate the quantities of earthwork for 200 m length for a portion of road in an uniform ground, the height of banks at two ends being 1.0m and 1.60m. The formation width is 10 m and side slope 2:1 (H:V). Assume that there is no transverse slope. **[9]**

b) Explain different methods to workout quantity of earthwork for Road, canal, Railway embankment, dam. **[8]**

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Q5) a) Briefly explain **[9]**

      i) General or brief specification

      ii) Detailed specification

   b) Using the standard format, conduct the rate analysis for the following item of work. Brickwork in a cement mortar 1:6. (take brick size as 19cm×9cm×9cm) **[9]**

<div align="center">OR</div>

Q6) a) Conduct the rate analysis for the following item of work. **[9]**

      Cement concrete 1:2:4 for RCC Roof slab

   b) Write a detailed specification for BBM in CM 1:6 for superstructure. **[9]**

Q7) a) Define valuation. Explain any one method of depreciation. **[6]**

   b) 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 40th year. Use straight line method, constant percentage method and sinking fund method assuming 8% compound interest. **[6]**

   c) Differentiate between price, cost and value. **[6]**

<div align="center">OR</div>

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

   b) Explain with example: **[6]**

      i) Obsolesce

      ii) Years Purchase

      iii) Earned Value

   c) What is Depreciation? List different methods of calculating depreciation explain anyone. **[6]**

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