

Total No. of Questions : 8]

**PB4399**

SEAT No. :

[Total No. of Pages : 3

[6263]-68

**B.E. (Civil)**

## **QUANTITY SURVEYING CONTRACTS AND TENDERS**

**(2019 Pattern) (Semester - VIII) (401012)**

*Time : 3 Hours]*

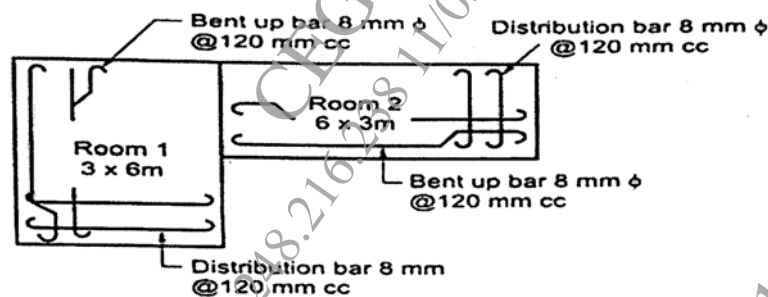
*[Max. Marks : 70*

*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 the right indicate full marks.
- 4) Use of electronic pocket calculator is allowed.
- 5) Assume suitable data if necessary.

**Q1) a)** What are the factors to be considered while preparing detailed estimates?[8]

- b) Determine the quantity of steel reinforcement in slab for both room from fig in 8mm  $\phi$  bar provided @120mm c/c along short & long span with alternate bent up bar, determine the quantity of reinforcement. [9]



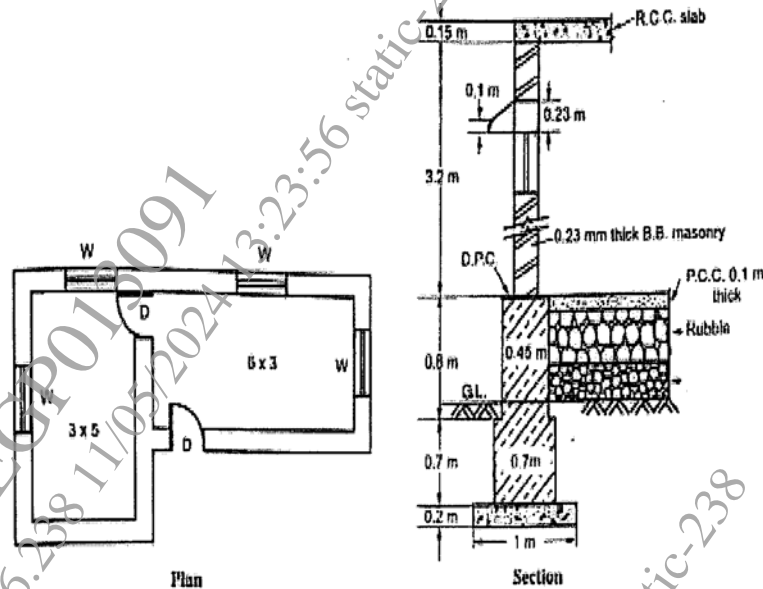
OR

**Q2) a)** Fig shows plan and section of residential building determine the quantities of following item by PWD method (assume any suitable data) [8]

- i) Excavation in foundation
- ii) Pcc in foundation
- iii) UCR masonry in cm (1:6) in foundation

**P.T.O.**

iv) Damp proof coarse 3cm thick



- b) Explain in detail concept of long wall short wall and Centre line method with the help of example. [9]

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

- b) Differentiate between following methods : [9]
- Mid sectional area method & mean sectional area method
  - Trapezoidal formula & Prismoidal formula

OR

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

- b) Explain different methods to work out the earthwork quantity for roads and canals. [8]

- Q5) a)** Briefly explain [9]
- i) Brief specifications
  - ii) Detailed specifications
- b) Using the standard format conduct the rate analysis for the following item of work - brick work in a cement mortar 1:6 (take a brick size as  $19\text{cm} \times 9\text{cm} \times 9\text{cm}$ ). [9]

OR

- Q6) a)** Draft a detailed specification for materials, labour, workshop, mode of measurement etc. for the UCR masonry in foundations and plinth. [9]
- b) Explain the factors to be considered while determining rate per unit of an item. [9]
- Q7) a)** Explain with example five purpose of valuation. [6]
- b) Discuss five factors that affect the value of property. [6]
- c) What is depreciation? List the different methods of calculating depreciation. Explain any one [6]

OR

- Q8) a)** State four methods of computing depreciation. Explain any one in details. [6]
- b) Explain the concept of freehold and lease hold property. [6]
- c) A building is constructed at a cost of 5lakh. The life of a building may be assumed to be 80 years and scrap value of building to be 10% of building cost. Determine the depreciation in 40 years use the straight line method. Cost percentage method and sinking fund method assuming 8% of compound interest. [6]

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