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C14-C-403

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**BOARD DIPLOMA EXAMINATION, (C-14)
OCTOBER/NOVEMBER-2018
DCE-FOURTH SEMESTER EXAMINATION**

QUANTITY SURVEYING -I

Time: 3 Hours]

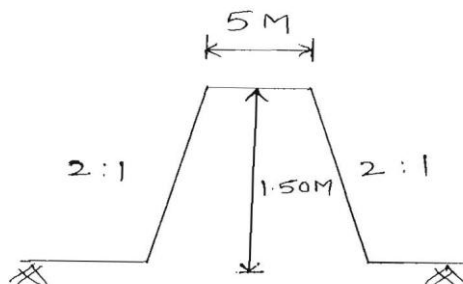
[Total Marks: 80

PART-A

3X10=30

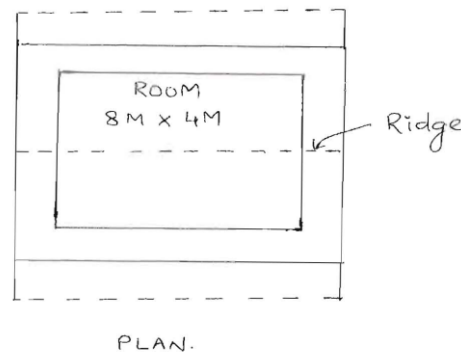
- Instructions :**
1. Answer **All** questions.
 2. Each question carries **Three** marks.
 3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. State the units for the following items of work.
 - i. Earth work excavation
 - ii) Spreading of gravel
 - iii) Reinforcement in R.C.C items.
2. State any four objectives of Quantity Surveying.
3. Define Lead and Lift and state values of initial lead and initial lift.
4. State the methods of calculating quantity of earth work.
5. Determine the quantity of earth work in embankment in certain reach of a road having length of 80m with cross-section as shown in figure.



6. State the methods of approximate estimate.

7. State any three differences between approximate estimate and detailed estimate.
8. Define center line method of taking out quantities of a building.
9. The door frame of size 1.30 m x 2.20m is provided with teak wood of size 120mm x 120mm. if the rate of teak wood is Rs 48,000 per m³ and labour charges for each frame is Rs 500/- Calculate the cost of the door frame.
10. The plan showing gabled end of a building. Calculate i) length of each common rafter
ii) The total number of common rafters
Wall thickness = 300mm Eaves projection = 500mm Sloe of roof = 1/3 span
Spacing of common rafter 400mm C/C



PART-B

10X5=50

- Instructions :**
1. Answer any **Five** questions.
 2. Each question carries **ten** marks.
 3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. (a) State five requirements of Quantity Surveyor
(b) State the general specifications of plastering of walls with cement mortar.
12. For an embankment 100m long of uniform gradient. When the height of the bank is 3m at one end and 2m at the other. The width of the embankment at top is 8m and its side slopes are 1 ½ :1 Estimate the quantity of each work by.
 - a. Mid-sectional area method
 - b. Mean Sectional area method

c. Prismoidal Formula

13. The particulars of a reservoir given below. Calculate the capacity of reservoir between the skill level and M.W.L of reservoir by

- i. Trapezoidal formula
- ii. Prismoidal formula

S No	Level in m	Area in m ²	Particulars
1	40	1200	Bed level reservoir
2	43	2500	
3	46	4000	Still level of Sluice
4	49	6200	
5	52	9200	
6	55	11500	F.T.L
7	58	15400	M.W.L

14. The plinth area of the apartment is 500 m². Determine the total cost of the building with the following data.

- i. Cost of construction = Rs 5000 per m²
- ii. Water supply and sanitary
- iii. Electrical fittings = 7.5 % of building cost.
- iv. Architectural Appearance = 1% of building cost
- v. Unforeseen items = 2% of building cost.
- vi. P.S and contingency charges = 4% of building cost.

15. Prepare the Rough estimate of a proposed commercial complex for a municipal corporation for the following data

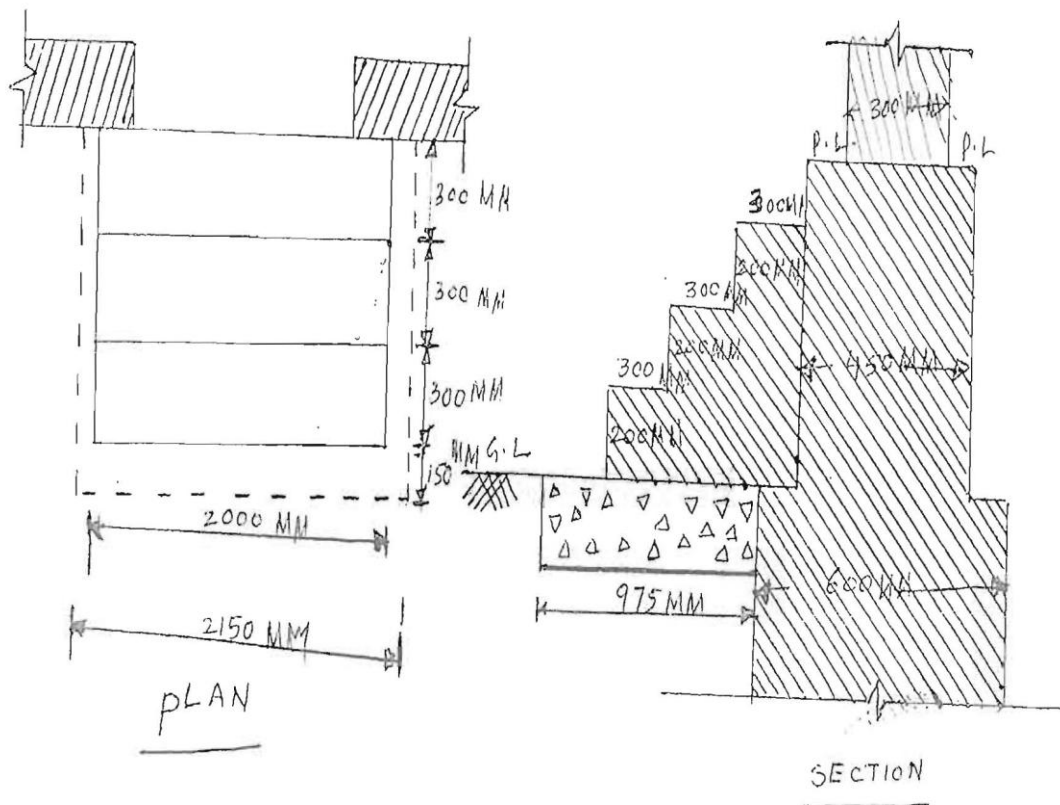
- a. Plinth Area = 700 m² per floor
- b. Height of each floor = 3.5 m
- c. No of stories = Ground floor +3
- d. Cubical content rate= Rs 5000 per m³.

Provisions are given below

- i. Water supply and sanitation = 6% of building cost
- ii. Electrification = 4% of building cost
- iii. Fluctuation of rates= 5 % of building cost
- iv. Contractor's profit = 14% of building cost
- v. P.S and Contingencies charges = 3% of building cost

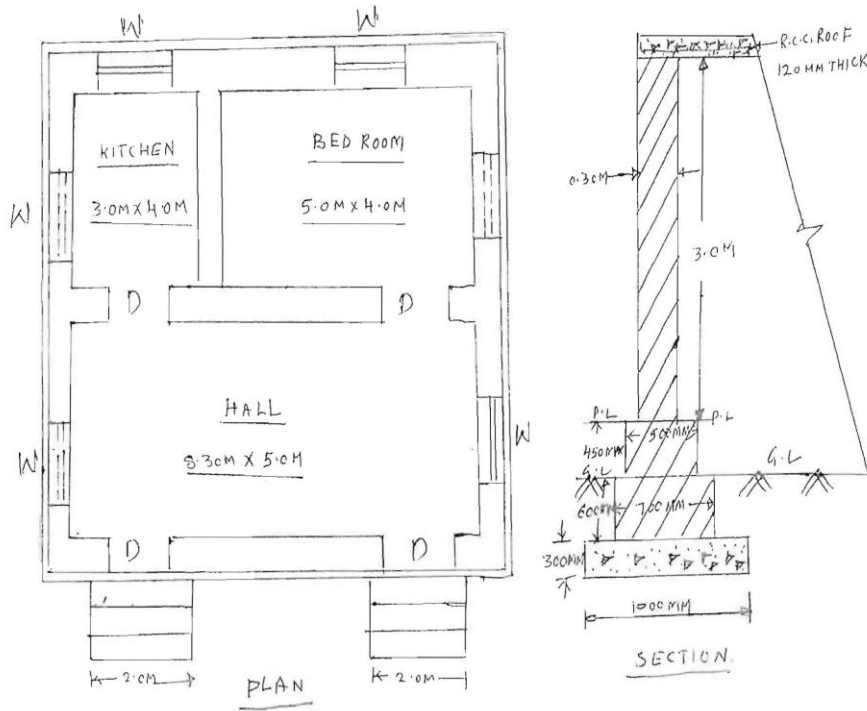
16. The plan and section of steps at the front of residential building shown in figure. Find the items of work

- a. P.C.C Bed (1:4:8) for foundation
- b. Brick Masonry in C.M (1:6) for steps
- c. Plastering of Steps in C.M (1:4)



17. Prepare an estimate for the following items of work of a residential building shown in figure.

- a. Earth work excavation for foundation
- b. Brick Masonry in C.M (1:6) for foundation and basement.
- c. Sand filling in basement up to a height of 350 mm from ground level



18. Prepare an estimate for the following items of work of the residential building shown in figure:

- Cement Concrete (1:4:8) bed for foundation
- R.R Masonry in C.M (1:6) for basement
- Brick Masonry in C.M (1:6) for super structure without deductions.

