

B.Tech IV Year I Semester (R13) Supplementary Examinations June 2017  
**ESTIMATION, COSTING & VALUATION**  
 (Civil Engineering)

Time: 3 hours

Max. Marks: 70

**PART – A**  
 (Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- What is estimating and what are the different types of estimating.
  - What are the aims of specification?
  - What are the methods of determining the value of property?
  - What are the methods of calculating earthwork?
  - Define depreciation.
  - What is valuation and its objectives?
  - List out the type of contracts.
  - What is salvage value? Explain.
  - What are the errors in estimates?
  - What is the amount for overhead and contingent charges?

**PART – B**  
 (Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Write down the detailed specifications of the following items of work.
- Cement concrete and RCC work.
  - Painting.

OR

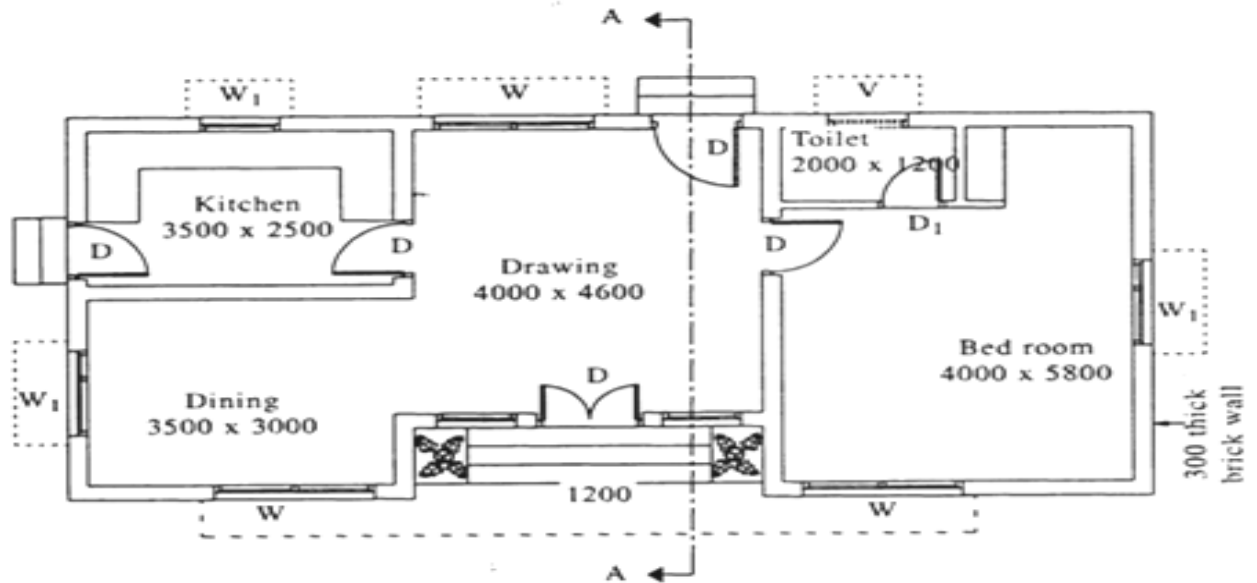
- 3 Explain the principles involved in working out the quantities for detailed estimates.

**UNIT – II**

- 4 Estimate the quantities of the following items from the plan and section as shown in figure 1.
- Earth work excavation.
  - Masonry work in super structure.

OR

- 5 Estimate the quantities of the following items from the plan and section as shown in figure 1.
- Earth work in filling.
  - Flooring.



PLAN

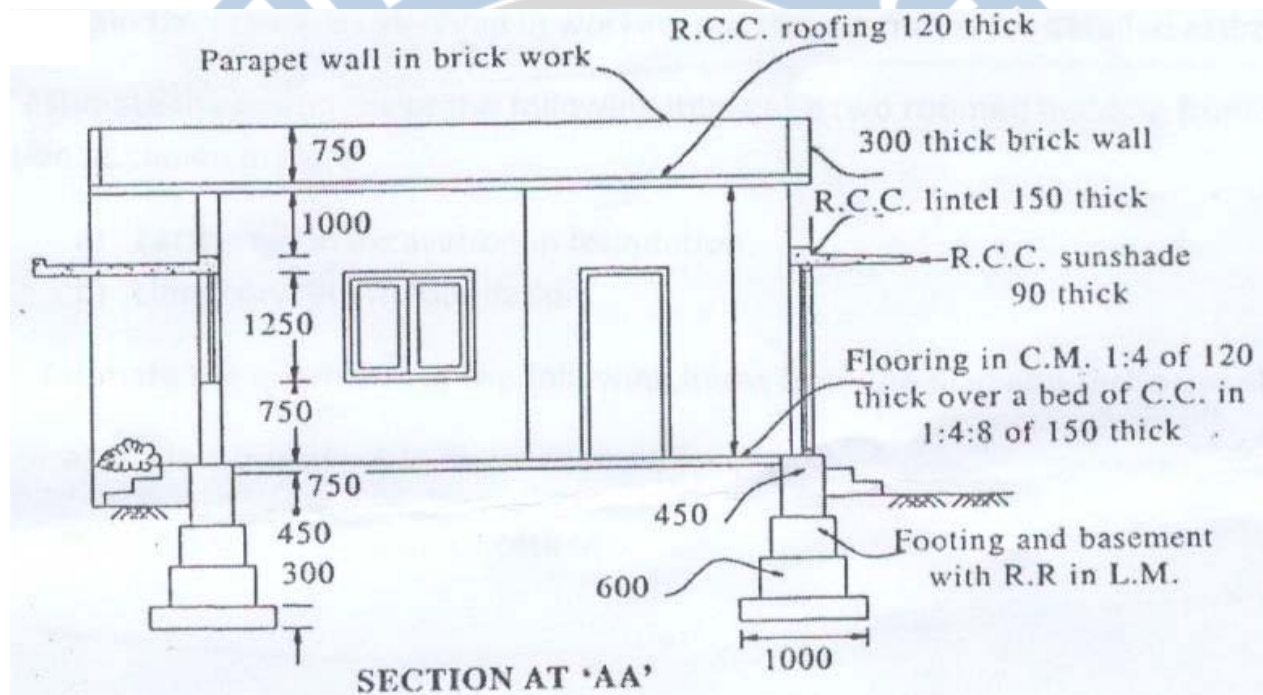


Figure : 1

## UNIT - III

6 The ground levels along the center line of the road are given below.

Chainage in m	0	20 m	40 m	60 m	80 m
R.L. of ground	101.5	100.9	101.5	102	102.85

The formation level throughout 80 m length is 102.75. The road has a rising gradient 1 in 40. If the width of the road is 12 m and side slopes 2:1, calculate the quantity of earthwork required by any method.

OR

7 The details of cross section of a road crest 4m wide and 6000 m length are as follows:

- 15 cm for boulder soiling.
- 100 mm wide 125 mm deep boulder edging.
- 10 cm consolidated stone matching.

Prepare a detailed estimate of the road.

## UNIT - IV

8 Explain the contract system and the types of contracts in detail.

OR

9 Calculate the materials, labour etc required and work out the rate analysis for the following items.

- R.C.C work in beams slabs with 1:2:4 per  $m^3$ .
- I class brickwork in foundation and plinth with 20 x 10 x 10 cm bricks with 1:6 cement mortar sand per 1 cubic meter.

## UNIT - V

10 Determine the present value of a building, which was constructed 35 years ago at Rs 35000/-. The estimated life of the building is 80 years, at the end of which it will have 10% scrap value of its cost of construction. Determine the value by any two methods.

OR

11 What are the requirements of tendering and explain in detail the types of tenders.