R13

Code: 13A01701

# 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:  $(10 \times 02 = 20 \text{ Marks})$
- (a) What is estimating and what are the different types of estimating.
  - (b) What are the aims of specification?
  - (c) What are the methods of determining the value of property?
  - (d) What are the methods of calculating earthwork?
  - (e) Define depreciation.
  - (f) What is valuation and its objectives?
  - (g) List out the type of contracts.
  - (h) What is salvage value? Explain.
  - (i) What are the errors in estimates?
  - (j) What is the amount for overhead and contingent charges?

## PART - B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- Write down the detailed specifications of the following items of work.
  - (a) Cement concrete and RCC work.
  - (b) Painting.

# **OR**

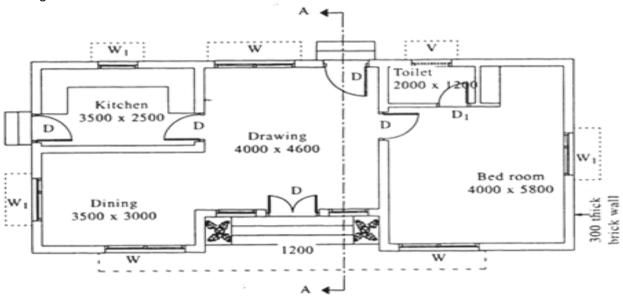
3 Explain the principles involved in working out the quantities for detailed estimates.

# UNIT – II

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

### OR

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



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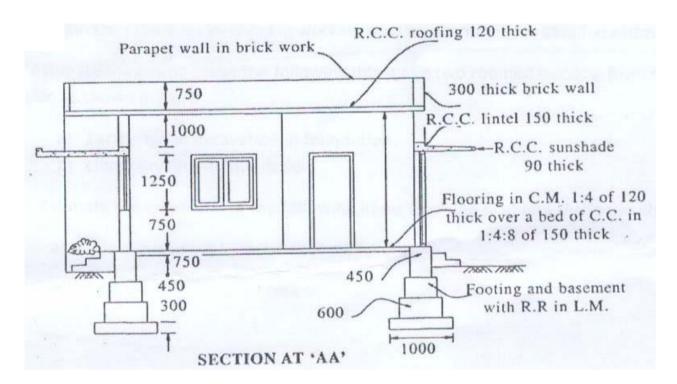


Figure: 1

UNIT – III

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

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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:
  - (a) 15 cm for boulder soiling.
  - (b) 100 mm wide 125 mm deep boulder edging.
  - (c) 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.
  - (a) R.C.C work in beams slabs with 1:2:4 per m<sup>3</sup>.
  - (b) 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

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

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