

# CBCS SCHEME

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15CT73

## Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019 Estimation and Costing

Time: 3 hrs.

Max. Marks: 80

*Note: 1. PART-B, Q.No.5 which is compulsory. Answer any THREE questions by selecting any TWO from PART-A and ONE from PART-C each.  
2. Missing data, if any, may be suitable assumed.*

### PART-A Module-1

- 1 a. List and explain briefly various types of estimate. (08 Marks)  
b. Write a note on:  
i) Necessity of estimation  
ii) Measurement book. (08 Marks)

OR

- 2 a. Explain briefly, administrative approval and technical sanction. (08 Marks)  
b. Discuss briefly, nominal muster roll. (08 Marks)

### Module-2

- 3 a. Define specifications. List out the objectives of specifications. (04 Marks)  
b. Write detailed specifications of the following:  
i) Burnt brick masonry in CM 1:6  
ii) RCC (1:2:4) roof slab  
iii) Cement plastering in CM 1:4. (12 Marks)

OR

- 4 a. Explain the purpose of analysis of rate of different item of works. (04 Marks)  
b. Carry out rate analysis for the following:  
Given: Basic rates of materials as cement = 320 Rs./Bag  
Sand = 120 Rs./cum, coarse aggregate = 750 Rs./cum.  
i) 6mm thick cement plastering, CM 1:3  
ii) C.C. bed of 1:5:10 for foundation  
iii) Brick masonry in CM of 1:6 in superstructure. (12 Marks)

### PART-B Module-3 and 4

- 5 Prepare a detailed estimate for a residential building shown in Fig.Q.5 for the following items of work:  
i) Earthwork excavation for foundation @ Rs.115/m<sup>3</sup>  
ii) Size stone masonry in foundation and basement with CM1:6 @ Rs.2800/m<sup>3</sup>  
iii) First class brick masonry for super structure in CM1:6 @ Rs.3800/m<sup>3</sup>  
iv) Inside plastering in CM1:6 @ Rs.145/m<sup>2</sup>. (32 Marks)

**PART-C**  
**Module-5**

6 Estimate the quantity of earthwork for a portion of road work from the following data, using mid-sectional area method:

Formation width = 4m, side slope 2:1 in filling, side slope 1.5:1 in cutting.

Chainage, m	0	40	80	120	160	200	240	280
RL of ground, m	100.6	100.2	99.8	100.2	100.8	101.9	102.4	102.5
RL of formation level, m	101.00	Rising gradient 1 in 400 →						

(16 Marks)

OR

7 a. Explain the methods used for measurement of earthwork for roads. (04 Marks)

b. The details of a septic tank is as shown in Fig.Q.7(b). Estimate the quantities for the following items of work.

- i) Earthwork excavation in foundation
- ii) Cement concrete 1:3:6 floor and foundation
- iii) First class brick work with CM 1:4
- iv) 12mm thick cement plaster CM 1:3.

(12 Marks)

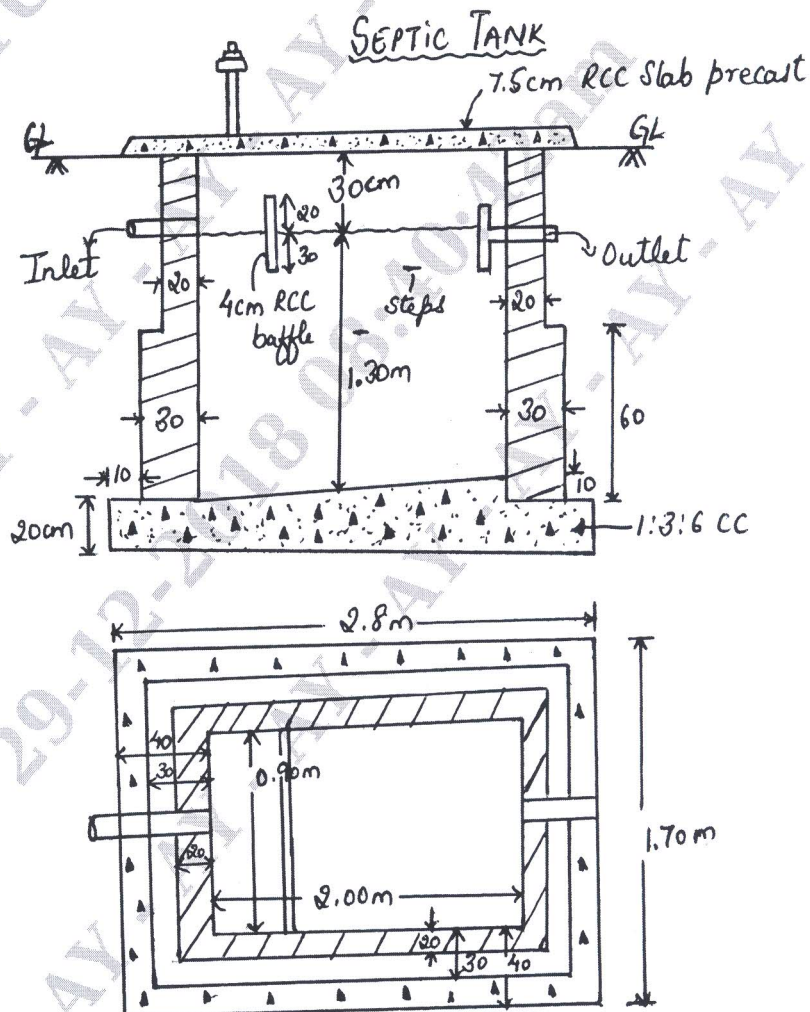


Fig.Q.7(b)



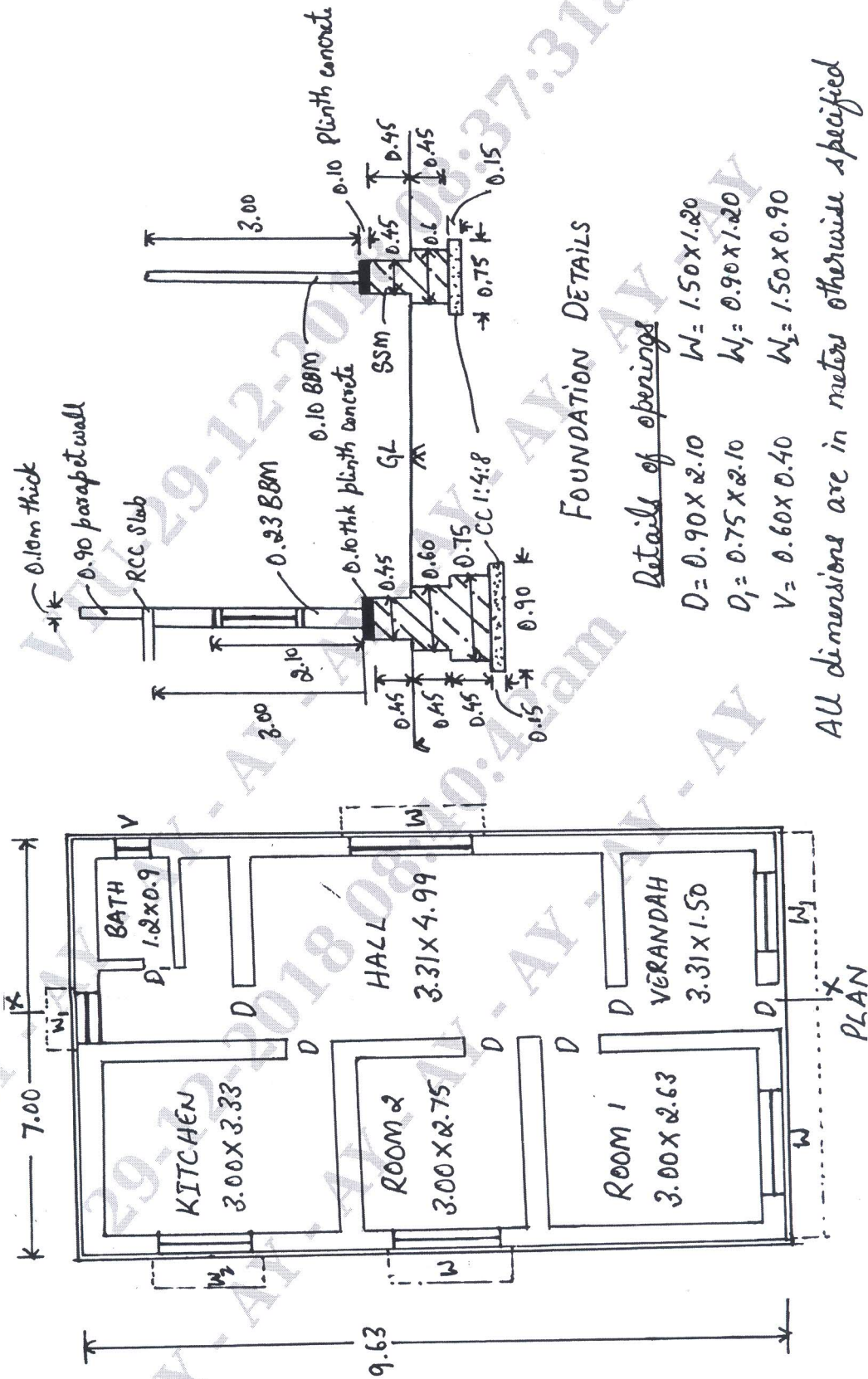


Fig.Q.5

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