

**1522****Code : 15CE53T**Register  
Number

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**V Semester Diploma Examination, Nov./Dec. 2017****ESTIMATING & COSTING****Time : 3 Hours ]****[ Max. Marks : 100**

- Note :** (1) Answer **all** the parts.  
(2) Missing data may be assumed suitably.

**PART - A**1. Answer any **one** from the following (a or b) :

- (a) (i) What is an Estimate ? List the purpose of Estimate. **5**  
(ii) What are the factors to be considered for deduction in openings in case of plastering ? **5**

**OR**

- (b) (i) State the rules for measurement of works for obtaining the quantities as per IS 1200. **5**  
(ii) Write short notes on lead statement. **5**

2. Write the detailed specification for any **one** of the following (a or b) :

- (a) (i) Pointing in cement Mortar 1 : 6 **5**  
(ii) R.C.C. work of proportion 1 : 1½ : 3 **5**

**OR**

- (b) (i) Earthwork in Excavation in foundation. **5**  
(ii) Centering and shuttering works. (Form work) **5**

3. Prepare Rate analysis for any **one** of the following (a or b) :

- (a) First class brickwork in cement mortar 1 : 4 in superstructure (ground floor). **10**

**OR**

- (b) Vitrified floor tiles of size 60 cm × 60 cm laid on 20 mm thick cement mortar 1 : 4. **10**

## PART - B

4. Prepare a detailed and abstract estimate for the following items of the building as shown in Fig. 1 by CENTRELINE METHOD.

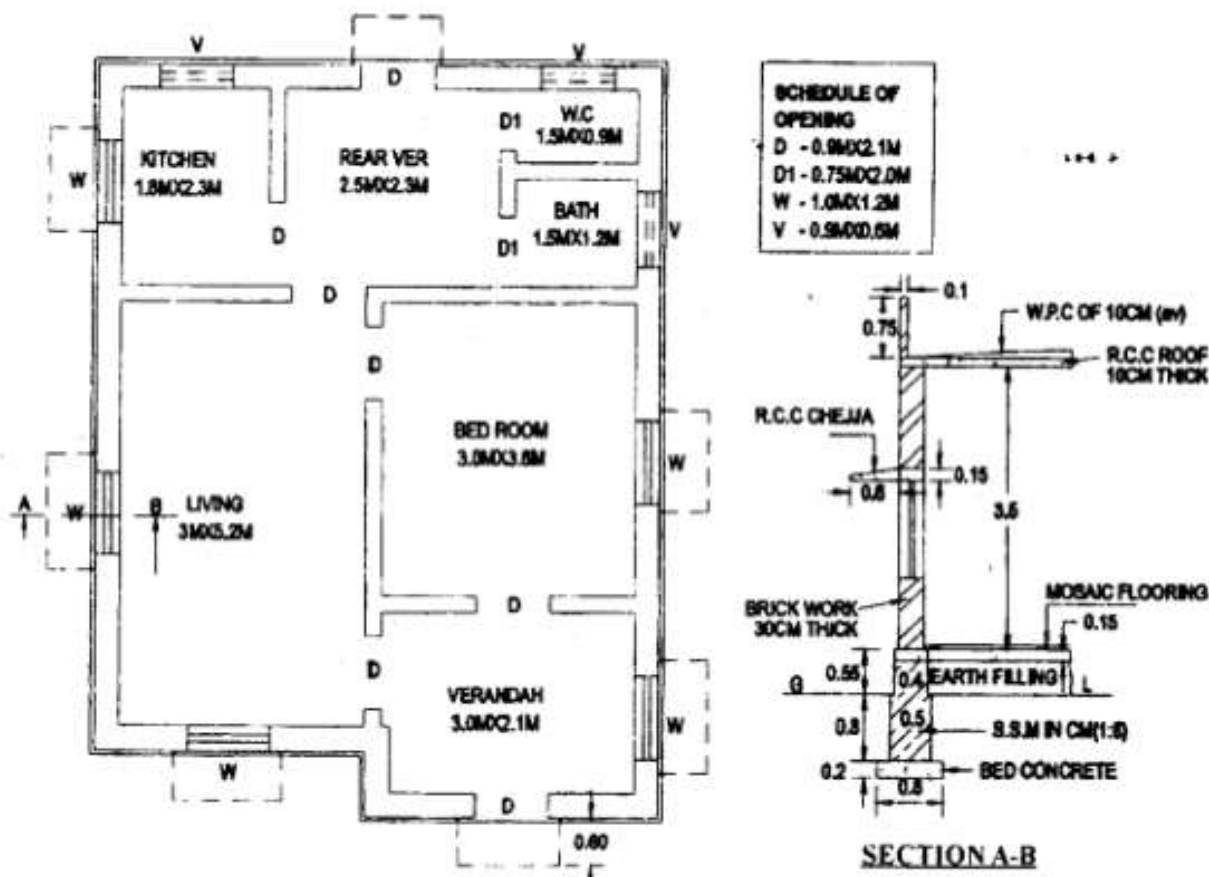


Fig. 1 (All dimensions in metres)

External Walls are 30 cm & Internal Walls 20 cm

Foundation Details Same for 20 cm & 30 cm Wall.

- |  |    |
|--|----|
| (i) Brick masonry in C.M. 1 : 6 for superstructure excluding parapet wall at ₹ 4,500 per m <sup>3</sup> .  | 10 |
| (ii) Plastering with C.M. for inside walls excluding ceiling plastering at ₹ 140 per m <sup>2</sup> .  | 10 |
| (iii) Enamel painting for Doors (fully panelled). Windows (partly panelled and partly glazed), and ventilators (fully glazed) at ₹ 75 per m <sup>2</sup> . | 10 |
| (iv) C.C. bed 1 : 5 : 10 for foundation at ₹ 3600/m <sup>3</sup> .   | 10 |
| (v) S.S. masonry in C.M. 1 : 6 for foundation and basement at ₹ 2,250.   | 10 |

## PART – C

5. Answer any **one** from the following ('a' or 'b') :

- (a) Estimate the quantity of earthwork of a road between chainages 10 to 15 measured with standard 50 m chain from the following data : 20

Chainage	10	11	12	13	14	15
Ground Level (m)	50	50.6	50.30 48.50	47.90	48.20	48.00
Formation Level (m)	49.50	Upward gradient of 1 in 200.				

The formation width is 8 m and side slopes in cutting 1 : 1 and banking 1.5 : 1.

OR

- (b) Prepare the detailed and abstract estimate of the following items of work for 800 m long and 4.00 m wide cement concrete road with 15 cm × 15 cm Kerbs and 1.50 m width, 7.5 cm thick stone slab footpath on either side of the road : 20

- (i) C.C. 1 : 4 : 8 for depressions taking 0.30 m<sup>3</sup> per 100 m<sup>2</sup> @ ₹ 1300 per cu.m.
- (ii) C.C. 1 : 2 : 4 wearing coat using 12 mm grade granite aggregate of 15 cm thick @ ₹ 2400 per cu. m.
- (iii) Surface coat of C.C. 1 : 2 : 4 of 10 cm thick using 10 mm grade aggregate @ ₹ 2500 per cu. m.
- (iv) Single line dressed granite stone Kerb 15 cm × 15 cm fixing with C.M. 1 : 4 @ ₹ 40 per running metre.
- (v) 7.5 cm thick granite slab fixing with C.M. 1 : 3 and pointing @ ₹ 250 per sq. m.