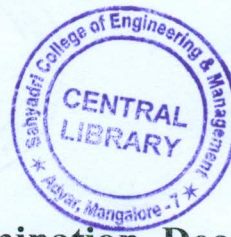


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**Seventh Semester B.E. Degree Examination, Dec.2015/Jan.2016**  
**Estimation and Valuation**

Time: 3 hrs.

Max. Marks:100

**Note: 1. Answer Q.No. 1 and any FOUR of the remaining.**  
**2. Missing data if any may be suitably assumed.**

- 1 The details of a residential building are shown in Fig. Q1. Estimate the quantities of the following items of work and cost of the respective items in an abstract form.
- Earthwork excavation for the foundation @ the rate of ₹ 120/m<sup>3</sup>.
  - Size stone masonry in CM 1 : 6 for footing and plinth at the rate of ₹2200 /m<sup>3</sup>.
  - First class brick work in CM 1 : 6 for super structure @ ₹3800 /m<sup>3</sup>.
  - RCC Roofing concrete 3600/m<sup>3</sup>.
- (40 Marks)**

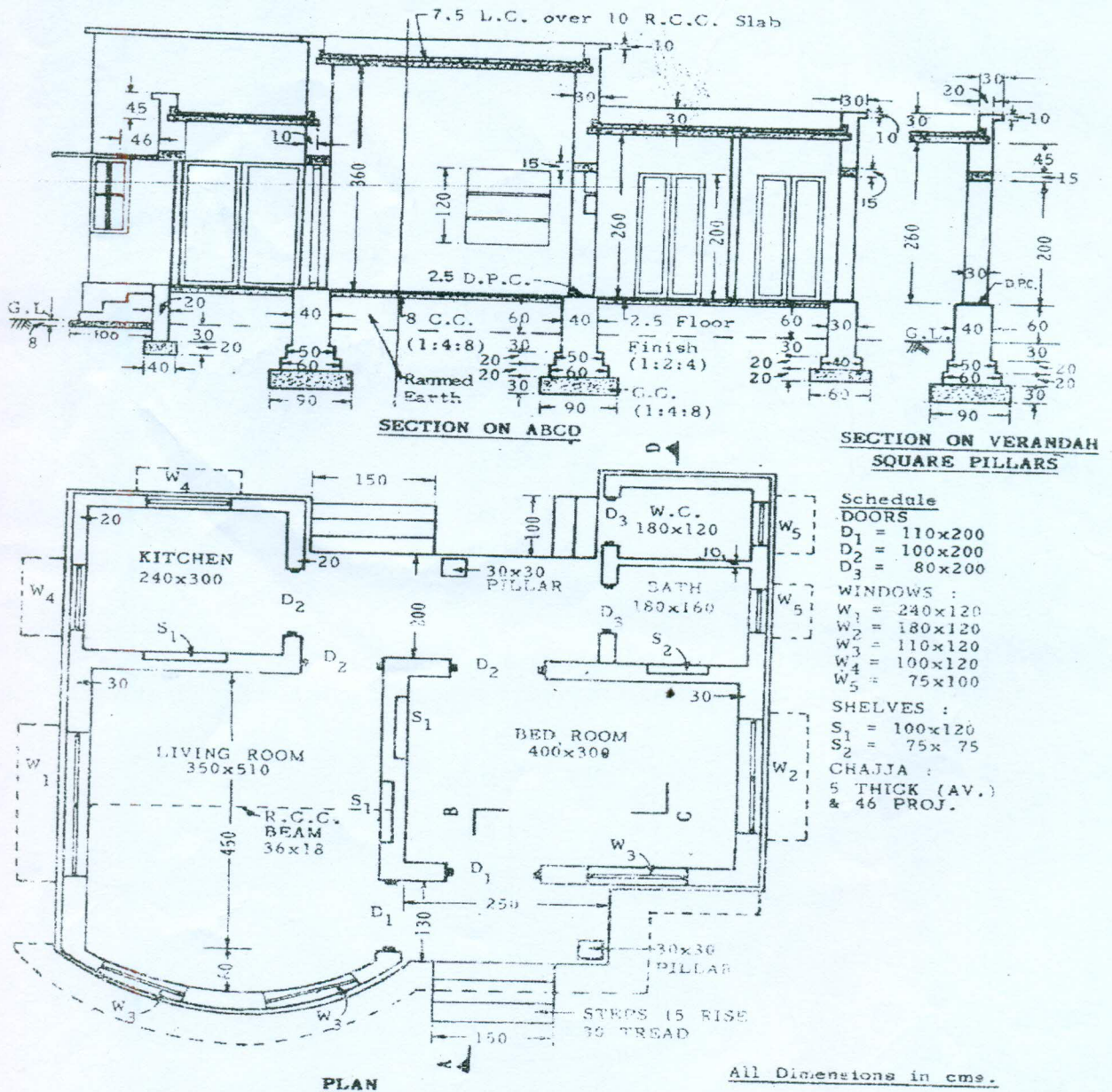


Fig.Q.1

Important Note : 1. On completing your answers, carefully draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

- 2 The details of septic tank is shown in Fig.Q2. Find detailed quantities of following items:
- Earth work excavation for foundation in hard soil.
  - Burnt brick masonry in CM 1 : 4 for sidewalls.
  - RCC (1:2:4) for cover slab with 1% steel reinforcement for septic tank and soak pit.

(15 Marks)

SEPTIC TANK FOR 25 USERS

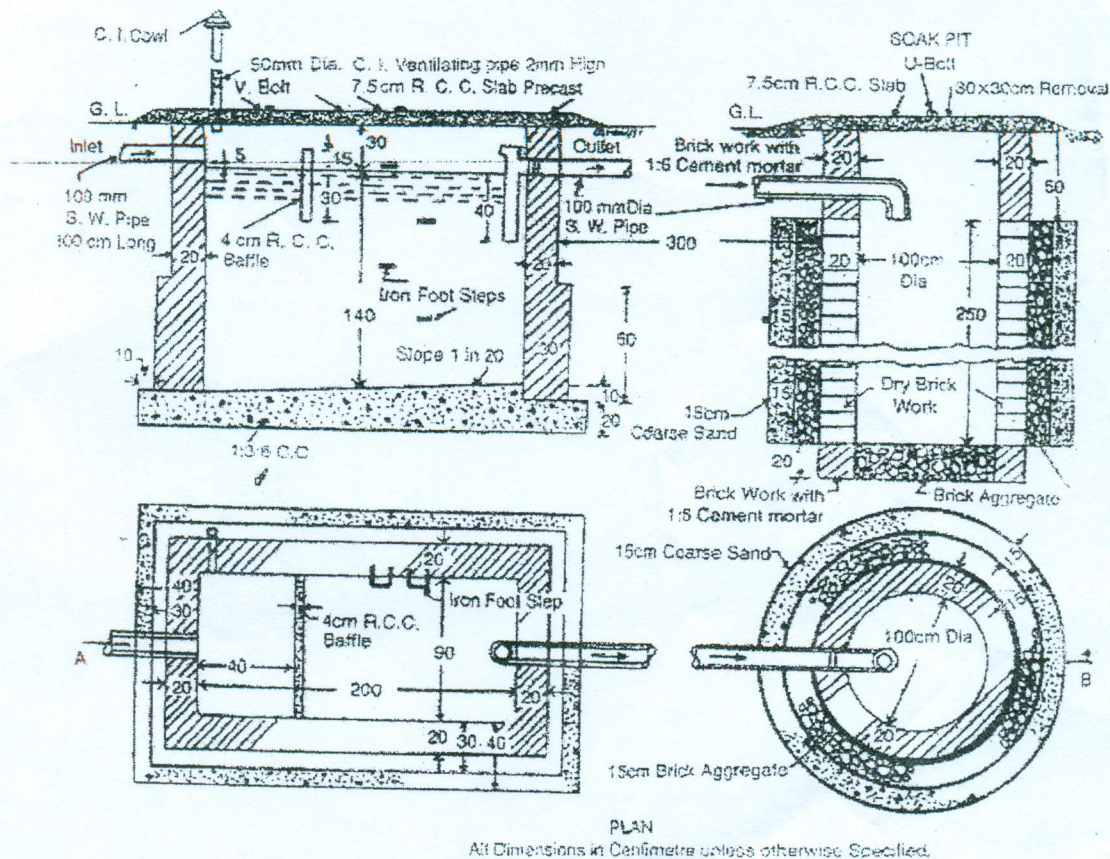
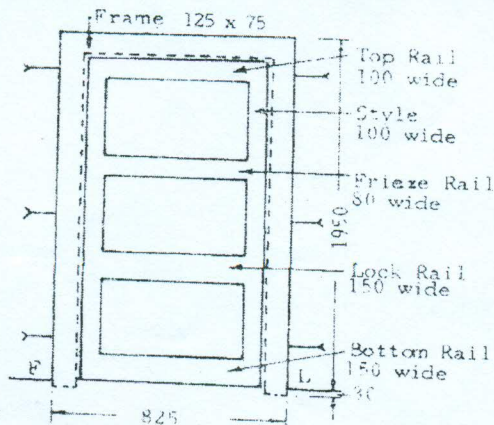


Fig. Q2

- 3 a. List and explain (any two) different types of estimates.
- b. Estimate the quantity of timber required for the door shown in Fig. Q3 (b).

(08 Marks)

(07 Marks)



All dimensions in mm

Fig. Q3 (b)



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- 4 Write specification for the following:
- Size stone masonry in footing and plinth 1:6 CM.
  - Damp proof course 2.5 cm in CC 1 : 1.5 : 3.
  - Cement concrete 1 : 2 : 4 for Roof slab.
- (15 Marks)

- 5 From first principle workout the rate per unit of any three of the following:
- CC 1 : 4 : 8 for foundation bed.
  - First class brickwork in CM 1 : 5 in superstructure.
  - Rubble stone masonry in CM 1 : 6 for foundation.
  - 12 mm thick internal plastering in CM 1:4 for brick wall.
- (15 Marks)

- 6 Estimate the quantity of earthwork from chainage 20 to 26 measured with a standard 20 m chain from the following data adopting average end area formula.

Chainage	20	21	22	23	24	25	26
Ground level above datum	88.10	87.74	87.80	88.20	90.75	90.20	89.98
				90.40			

The formation level at chainage 20 is 88.50 and the road has a rising gradient of 1 in 100. The formation width of the road is 10 m and side slopes in cutting 1 : 1 and banking 2 : 1.

(15 Marks)

- 7 Write short notes on the following:
- Administrative sanction and technical sanction.
  - Valuation and methods of valuation.
  - Tender and leasehold properties.
- (15 Marks)

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