

USN

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

10CV/CT73

**Seventh Semester B.E. Degree Examination, Dec.2016/Jan.2017**  
**Estimation and Valuation**

Time: 3 hrs.

Max. Marks:100

- Note:** 1. *Question No. 1 is compulsory.*  
2. *Answer any FOUR full questions, selecting atleast TWO questions each from Part-B and Part-C.*  
3. *Assume any missing data suitably.*

**PART - A**

- 1 The plan and cross section of the wall of the proposed "Office Building" is shown in Fig.Q1 work out the quantities and cost of the following items of work. Thickness of wall = 300 mm, Height of ceiling = 3100 mm.
- Earthwork in excavation for foundation @ ₹200/m<sup>3</sup>
  - Plain cement concrete for foundation at ₹5500/m<sup>3</sup>
  - Size stone masonry in CM 1:4 for foundation and plinth at ₹ 4500/m<sup>3</sup>
  - First class brick work in super structure in CM 1:6 @ ₹7000/m<sup>3</sup>. (40 Marks)

**PART - B**

- 2 The plan and section of the "Septic Tank" is given in Fig.Q2. Work out the quantities and cost of the following items of the work:
- Earthwork in excavation @ ₹ 250/m<sup>3</sup>
  - First class brickwork in CM 1:3 @ ₹ 7600/m<sup>3</sup> (15 Marks)
- 3 Write a detailed specification for the following items of work:
- Reinforced cement concrete
  - Cement plastering
  - painting to new woodwork. (15 Marks)
- 4
- List the various purpose of estimating. (05 Marks)
  - Explain the following approximate methods of estimating for building:  
(i) Service unit or unit rate method (10 Marks)  
(ii) Bay method
- 5
- Explain "Sinking Fund". (05 Marks)
  - Briefly explain "The piece work agreement". (05 Marks)
  - Mention the advantages and disadvantages of "Lump sum contract". (05 Marks)

**PART - C**

- 6 Estimate the quantity of earthwork in banking and cutting by mid sectional area method for a portion of road from the following data:

Distance in 'm'	0	100	200	300	400	500	600	700	800	900	1000	1100	1200
R.L. of ground	114.00	114.60	115.00	115.20	116.10	116.50	118.00	118.25	118.10	117.80	117.75	117.80	119.20
R.L. of formation	115.0	Upward Gradient of 1 in 200 upto 600 m						Downward gradient of 1 in 400					

Formation width of road is 10 metre. Side slope 2:1 in banking and 1.5:1 in cutting. (15 Marks)

Important Note : 1. On completing your answers, compulsorily 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.

7 Write a short note on the following :

- a. Termination of the contract
- b. Purpose of valuation
- c. Measurement book.

(05 Marks)

(05 Marks)

(05 Marks)

\*\*\*\*\*

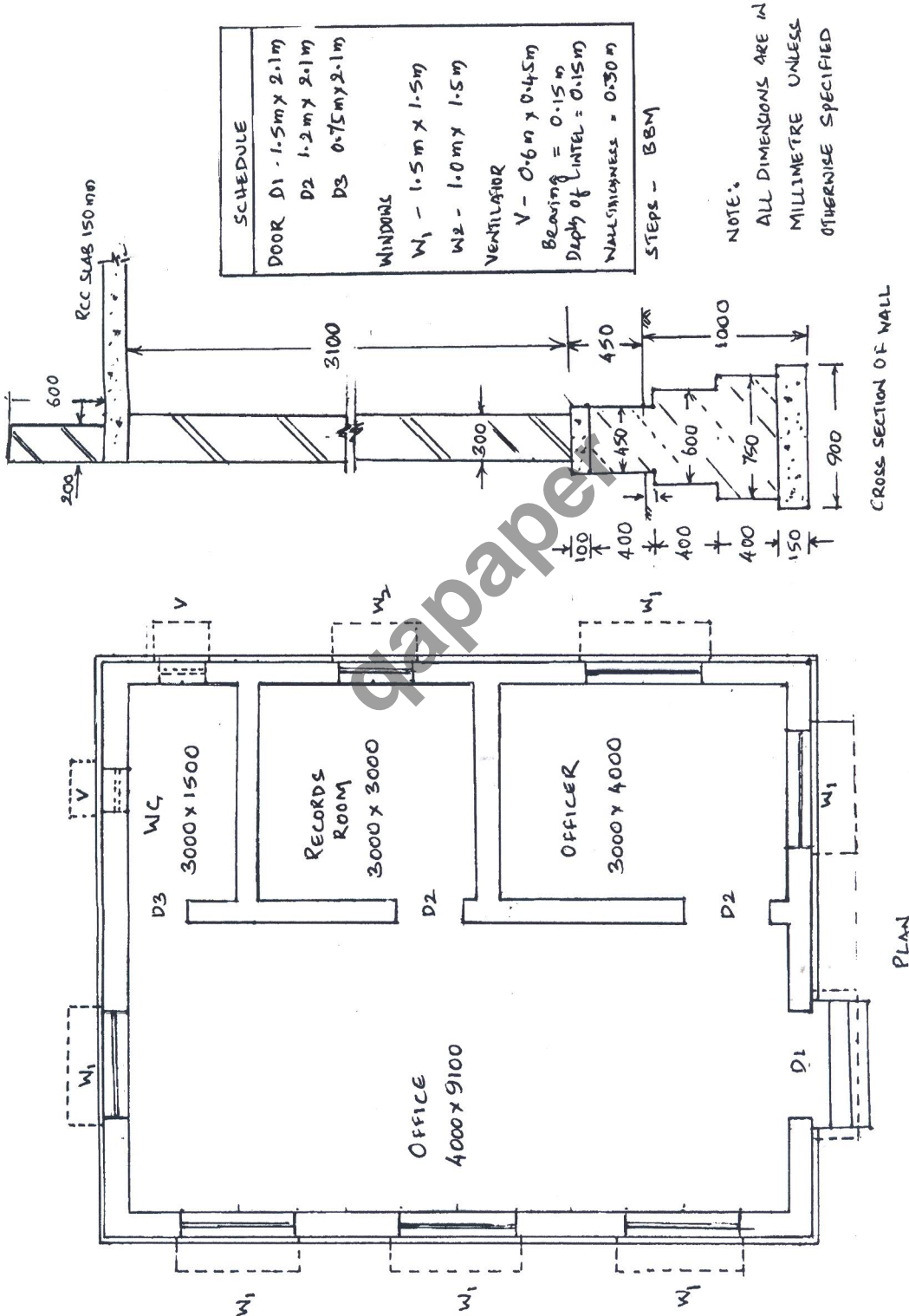


FIG Q1 - PROPOSED OFFICE BUILDING

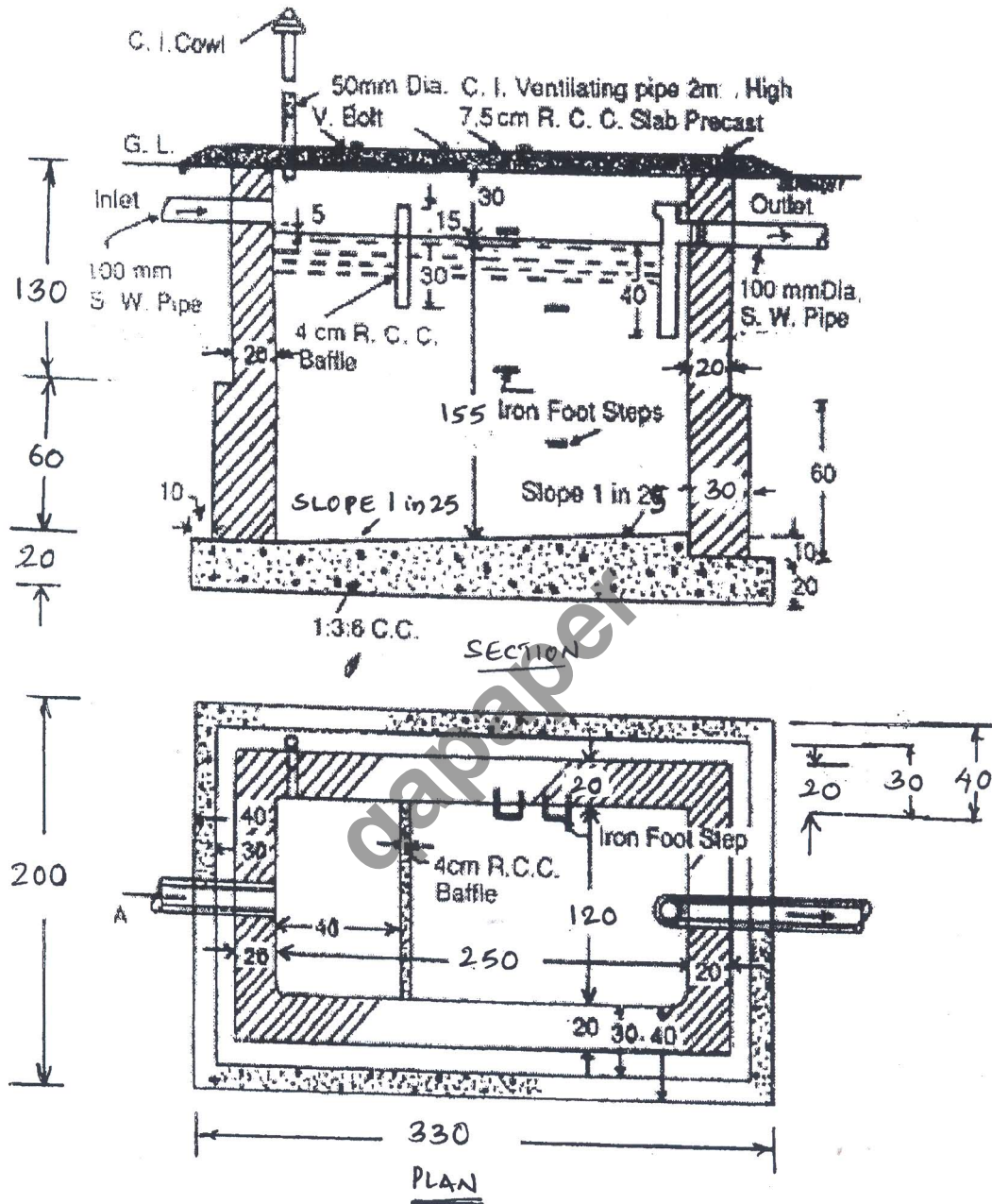


FIG Q2 - SEPTIC TANK

ALL DIMENSIONS IN CENTIMETRE UNLESS OTHERWISE SPECIFIED