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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Seventh Semester, B.E. - Civil Engineering

Semester End Examination ; Dec. - 2014

Quantity Surveying and Estimation

Time: 3 hrs

Max. Marks: 100

Note: *Part - A Compulsory*

Answer any ONE full question from Part - B

Answer any TWO full questions from part - C

Assume suitable missing data if any.

PART - A

1. The details of a residential building are shown in Fig. Q 1. Work out the quantities of the following items of work.
 - a) Earth work in excavation for foundation 40
 - b) P.C.C. bed of proportion 1 : 4 : 8
 - c) S.S.M in C.M 1: 6 for footing and plinth.
 - d) B.B.M in super structure in CM 1 : 6

PART - B

2. Prepare a detailed estimate of a septic tank for the given plan and section as shown in Fig. Q 2 20
3. Write detailed specifications for the following items of work.
 - a) Earth work excavation for foundation in hard soil.
 - b) Plastering with 1 : 4 C.M. 20
 - c) Mosaic flooring
 - d) Size stone masonry in C.M. 1 : 6.

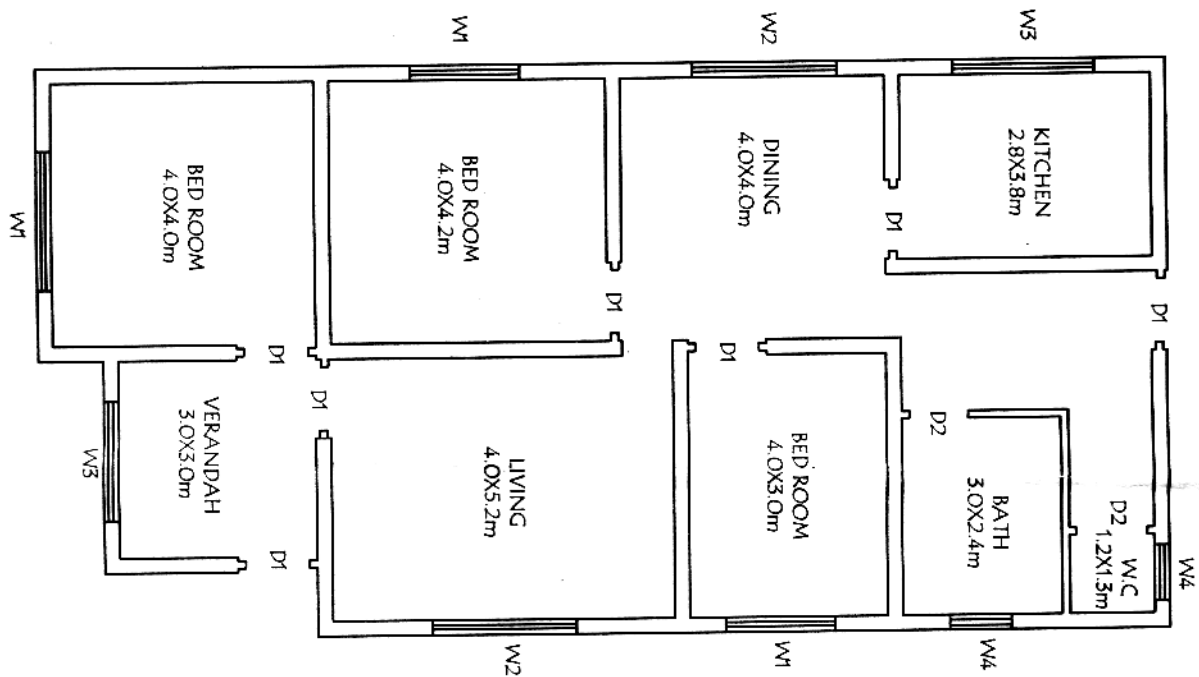
PART - C

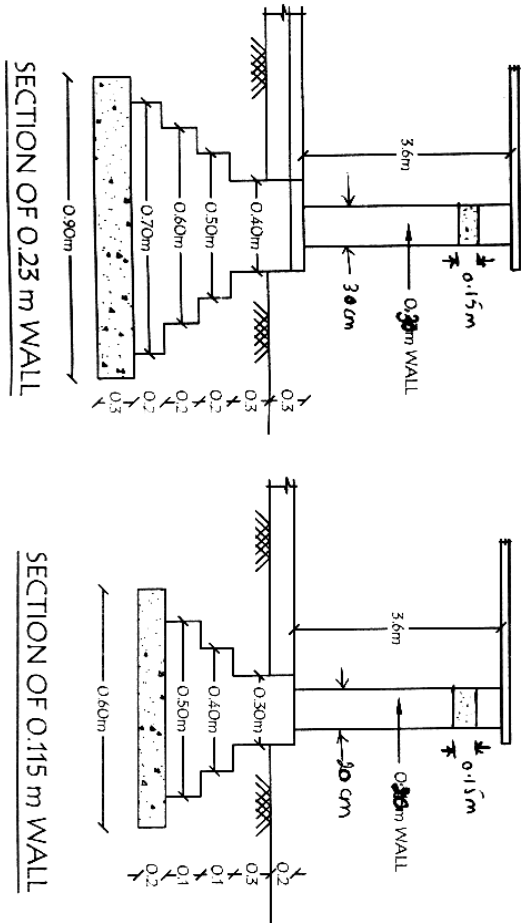
4. Work out from first principles the rate per unit of the following.
 - a) 1 : 3 : 6 plain cement concrete. 20
 - b) Random rubble stone masonry in 1 : 6 C.M.
 - c) 12mm thick plastering in 1 : 6 C.M. for superstructure.
5. Reduced level of ground along the centre line of a proposed road from chainage 50 to chainage 60 are given below. The formation level at the 50th chainage is 107. Formation width of the road is 10 m and side slope of banking is 2 : 1 (H : V), Length of the chain is 30 m. Prepare an ultimate of earthwork at the rate of Rs. 350/m³ and also find the area of the side slopes and the cost of turning the side slope at the rate of Rs. 90/sq.m. 20

Chainage	50	51	52	53	54	55	56	57	58	59	60
R.L of Ground	105	105.6	105.44	105.9	105.42	104.3	105	104.1	104.62	104	103.3
R-L of Formation	107	Down Gradient 1 in 150				Down Gradient 1 in 100					

6. Write short notes on the following :
- i) Schedule of Rate and Tender forms
 - ii) Earnest Money Deposit and Security Deposit
 - iii) Termination of contract and completion certificate.
 - iv) Lump sum contract and item rate contract.

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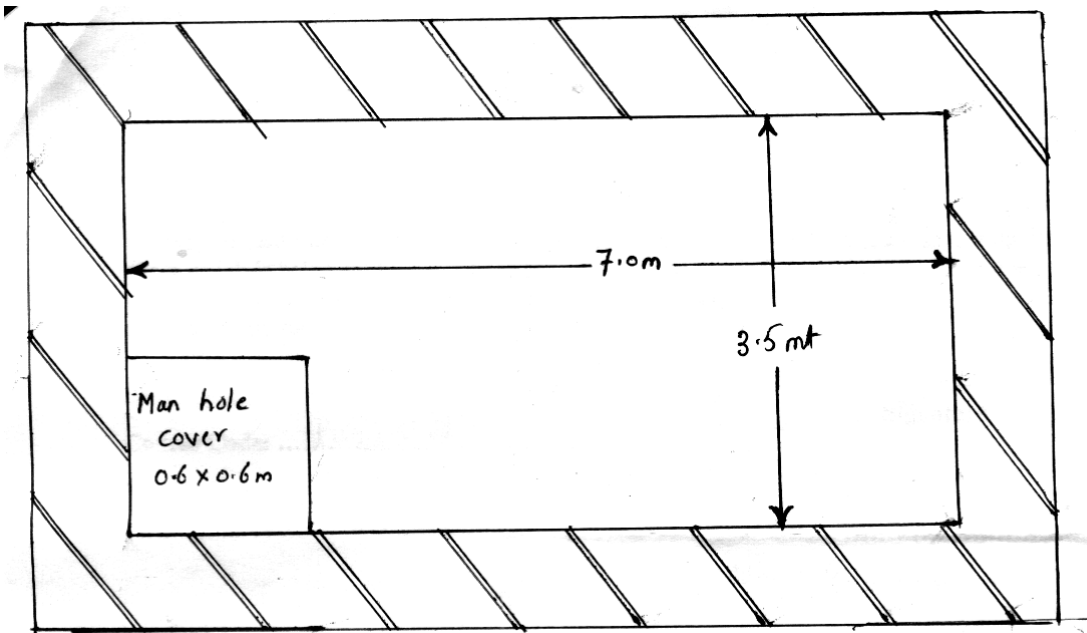




DOORS	WIDTH	LENGTH
D1	1.20m	2.10m
D2	1.00m	2.10m
WINDOWS		
W1	1.50m	1.35m
W2	2.0m	1.35m
W3	1.50m	0.75m
W4	0.30m	0.60m

LINTELS: 0.15M THICK R.B. WORK

Fig. Q (1)



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