USN ☐☐☐☐☐☐☐☐☐☐ 

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

Time: 3 hrs. 

Max. Marks:100

**Note:** 1. *Part – A Q.No. 1 which is compulsory, Answer any FOUR questions by Selecting any TWO from part B and TWO from part C each.*
2. *Missing data, if any, may be suitably assumed.*

### PART – A

1     Prepare a detailed estimate residential building in Fig.Q1(Refer page no.2) for the following items of work. Prepare on abstract of estimated cost.
   a.   Earth work excavation for foundation in hand soil at Rs. 125/m³
   b.   CC 1 : 4 : 8 for foundation at rate Rs. 2800/m³
   c.   Size stone masonry for foundation in cm 1 : 8 and basement in cm 1 : 6 at rate
   d.   BBM for superstructure in cm 1 : 6 at the rate of Rs
   e.   Internal plastering in cm 1 : 6 for walls at rate of Rs.      **(40 Marks)**

### PART – B

2     Prepare a detailed estimate of a manhole from the given drawing Fig.Q2(Refer page no.3), work out the quantities and cost of the following terms of work.
   a.   Earth work excavation for foundation at the rate of Rs.200/m³
   b.   CC 1 : 4 : 8 for foundation at rate Rs
   c.   First class brick work in cm 1 : 4 at rate of Rs.      **(15 Marks)**

3     Write detailed specification of any three of following :
   a.   Size stone masonry for foundation in cm 1 : 8
   b.   BBM for super structure in cm 1 : 6
   c.   12mm ceiling plastering
   d.   Cement concrete 1 : 2 : 4 for plinth.      **(15 Marks)**

4    a.   Enumerate various types of estimate. Explain any two in brief.      **(10 Marks)**
   b.   "Estimate is never the actual cost but it is approximate cost" Explain briefly.      **(05 Marks)**

### PART – C

5     Workout form first principle, the rate analysis for any three of the following :
   a.   Cement concrete 1 : 4 : 8 for foundation
   b.   BBM for super structure in cm 1 : 6
   c.   Size stone random rubble masonry for foundation in cm 1 : 8
   c.   CC 1 : 1½ : 3 for beams with 2% steel.      **(15 Marks)**

6     Prepare the cost of earth work for a portion Of road for 400 meter length from the following data :

a.   Formation width of road is 10mt

b.   Side slopes are 2 : 1 in banking and $1\frac{1}{2}$ : 1m cutting

c.   The cost of filling is Rs. 250/m³ and cutting is Rs. 160/m³.     **(15 Marks)**

| Station | Distance in mt | RL of ground | RL of formation |
|---------|----------------|--------------|-----------------|
| 20 | 1000 | 51.00 | 52.00 |
| 21 | 1040 | 50.90 | |
| 22 | 1080 | 50.50 | |
| 23 | 1120 | 50.80 | |
| 24 | 1160 | 50.60 | Downward gradient |
| 25 | 1200 | 50.70 | of |
| 26 | 1240 | 51.20 | 1 in 200 |
| 27 | 1280 | 51.40 | |
| 28 | 1320 | 51.30 | |
| 29 | 1360 | 51.00 | |
| 30 | 1400 | 50.60 | |

7     Explain any three of the following :

a.   EMD

b.   Security deposited

c.   NMR

d.   Measurement Book

e.   Sinking Fund.     **(15 Marks)**
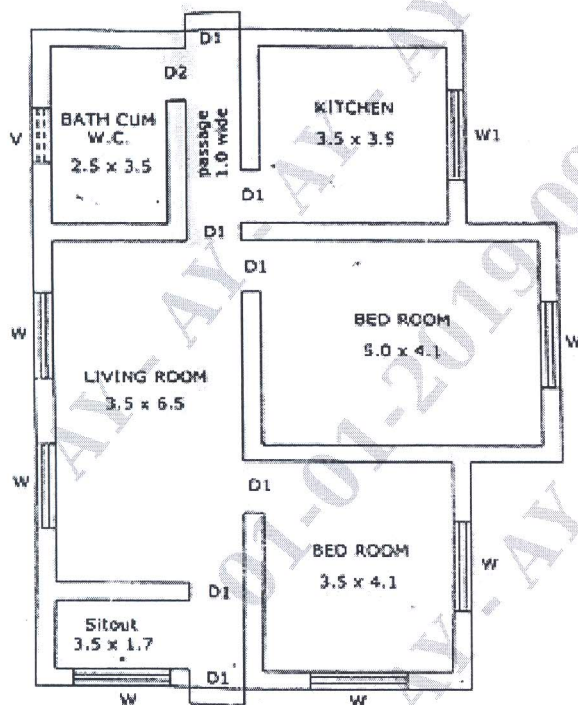


PLAN ( not to scale )
ALL DIMENSIONS ARE IN METERS
A RESIDENTIAL BUILDING
Fig : 1 ( Q.No. 1)
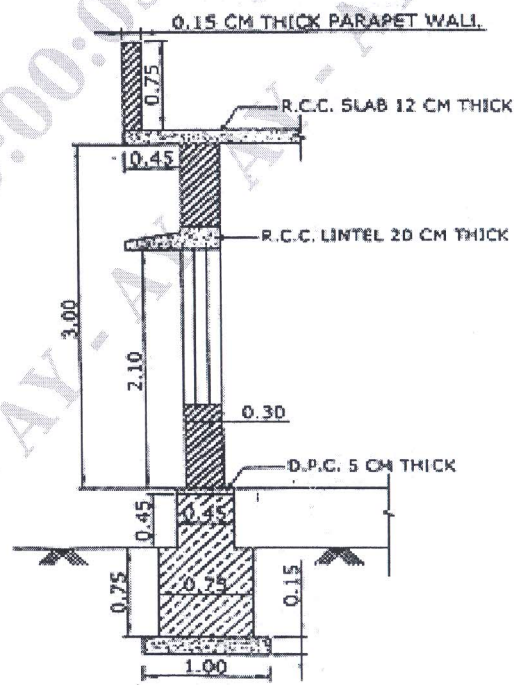
C/S OF WALL ( enlarged )

SCHEDULE OF OPENINGS

DOOR : D1 - 1.20 X 2.10     WINDOW : W - 1.50 X 1.35
       D2 - 0.90 X 2.10           : W1 - 1.50 X 1.20
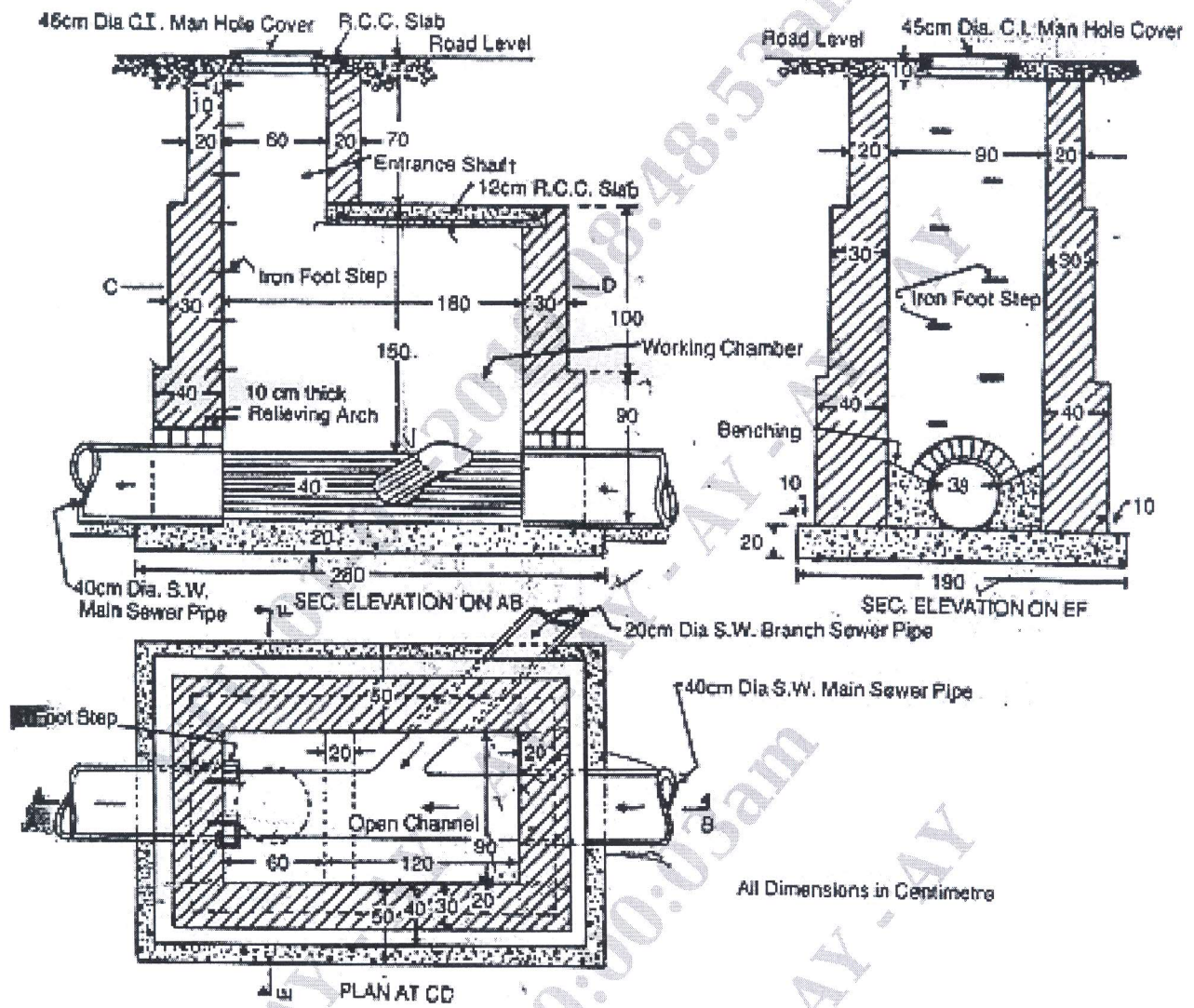       VENTILATOR : V - 0.90 X 0.45

Fig.Q1

Fig.Q2

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