USN | | | | | | | | | | | 10CV/CT73

Seventh Semester B.E. Degree Examination, June/July 2018
Estimation and Valuation

Time: 3 hrs. Max. Marks:100

Note: 1. *PART-A is compulsory.*
2. *Answer any two full questions from PART-B and PART-C each.*
3. *Missing data may be assumed suitably.*

PART – A

1 The details of residential building is as shown in Fig.Q1. Work out the quantities and cost for the following items of work, by the centre line method.
  i)   Centre line calculation with line diagram. **(06 Marks)**
  ii) Earth work excavation for foundation in ordinary soil at Rs.180/m³. **(05 Marks)**
  iii) Size stone masonry in CM 1:8 for foundation and basement at Rs.3800/m³. **(09 Marks)**
  iv) First class brick work in super structure in CM 1:6 upto roof slab at Rs.4300/m³.
    (09 Marks)
  v)   Plastering to inside walls in CM 1:3 with lime rendering at Rs.220/m². **(06 Marks)**
  vi) Total cost abstract for above items. **(05 Marks)**

PART – B

2 Estimate the detailed quantity of a fully paneled teak wooden door of size 1.2m × 2.10m as shown in Fig.Q2. Also work out the cost of a Honne wood and fastening and fixture required. Use your local prevailing rates. The data given are as under:
Frame = 8 × 12 cms
Top rails = 10 × 4.5 cms
Lock rail = 15 × 4.5 cms
Frieze rail = 10 × 4.5 cms
Hanging styles = 10 × 4.5 cms
Bottom rail = 20 × 4.5 cms. **(15 Marks)**

3 The details of a manhole is given is Fig.Q3. Find the quantities of the following items.
  i)   Earthwork in excavation for foundation in hard soil.
  ii) B.B.M in CM 1:4 for walls
  iii) R.C.C. roof covering slab in CC 1:2:4.
  iv) Plastering in CM 1:3 for inside walls. **(15 Marks)**

4 Write the detailed specification for any three of the following items:
  i)   Burnt brick masonry in CM 1:6
  ii) R.C.C. work in roof slab in CC 1:2:4
  iii) Plastering in CM 1:3 for inside walls
  iv) Mangalore tiled roof over sal wood battens. **(15 Marks)**

PART – C

5 Work out from first principles the analysis of rate for the following any three items:
  i)   Current concrete foundation bed in CC 1:3:6
  ii) Coursed rubble stone masonry in CM 1:8 for foundation.
  iii) Damp proof course 25 mm thick in CM 1:3
  iv) 12 mm thick Cement plastering in CM 1:3. **(15 Marks)**

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6 Estimate the quantities of earth work from chainage 70 to 76 measured with a standard 20 m chain from the following data. Use mean sectional area method. Side slopes 1:1 in cutting and 2:1 in banking.

Chainage	70	71	72	73	74	75	76
Ground RL's	88.10	87.74	87.80	88.20 90.40	90.75	90.20	89.98
Formation level	88.50	← raising gradient 1 in 100					

Formation width of road is 10 m. Draw the longitudinal section of the proposed road.

(15 Marks)

7 Write short notes on:
   i) Earnest money and security deposit
   ii) Measurement book and nominal muster roll
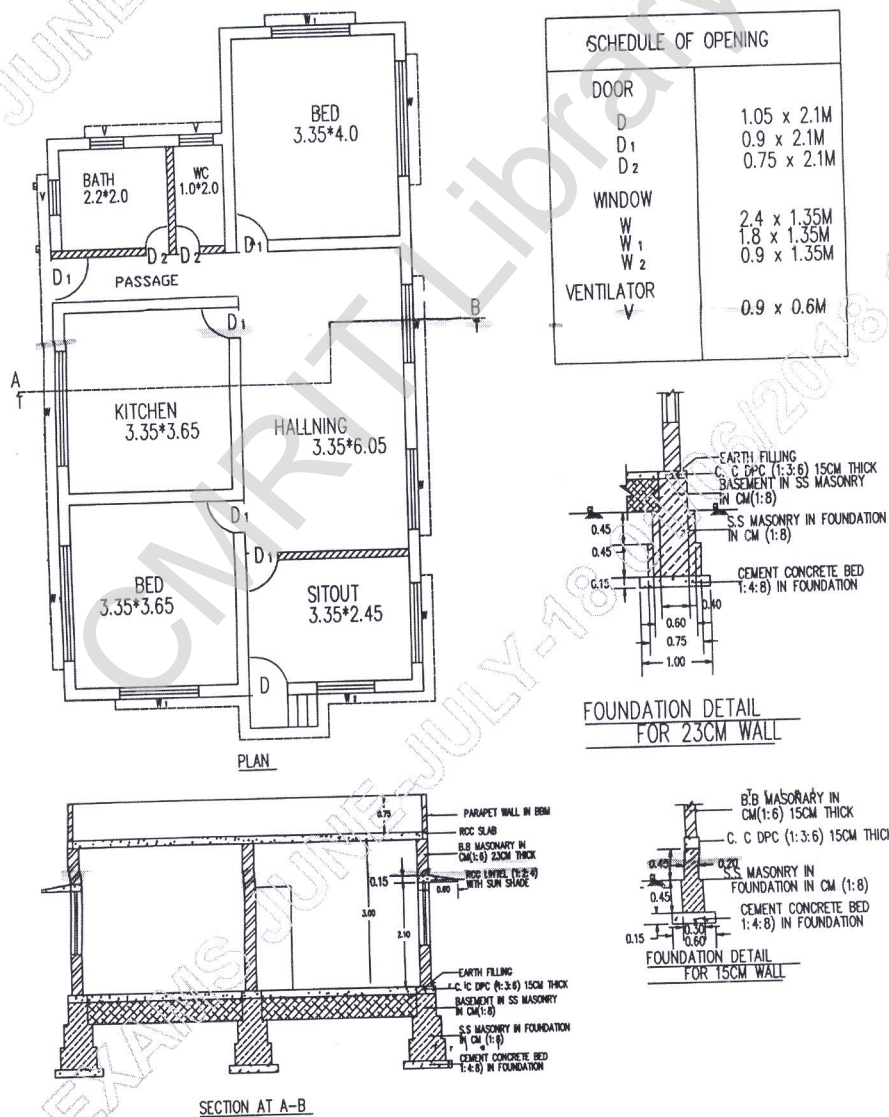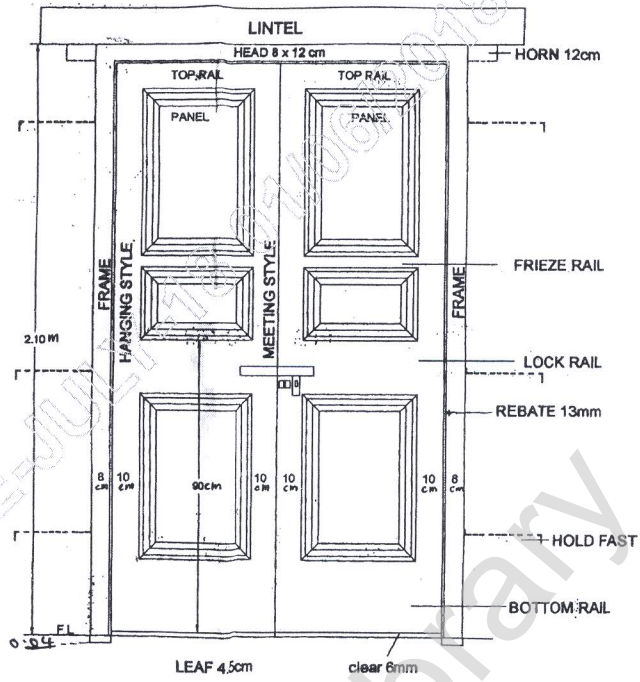   iii) Administrative approval and technical sanction
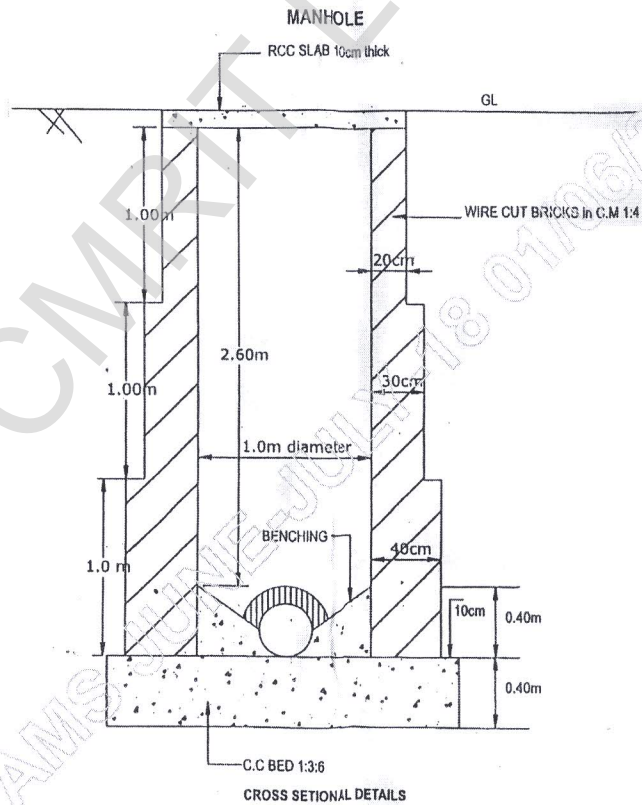
(15 Marks)

Fig.Q1

Fig.Q2

Fig.Q3

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