CV701

M S RAMAIAH INSTITUTE OF TECHNOLOGY

(AUTONOMOUS INSTITUTE, AFFILIATED TO VTU)
BANGALORE – 560 054

SEMESTER END EXAMINATIONS – DEC 2013 / JAN 2014

Course & Branch : **B.E.- Civil Engineering**		**Semester** : **VII**
Subject : **Estimation and Costing**		**Max. Marks** : **100**
Subject Code : **CV701**		**Duration** : **3 Hrs**

Instructions to the Candidates:
- Answer **Question NO. 1** and any **THREE** of the remaining.

UNIT – I

1. The details of residential building are shown in fig.1. Estimate the quantities of the following items of work and cost of respective items in an abstract form. Take all-round lintel.

    .Calculation of center line and No. of junctions. (05)

    .Earthwork excavation for foundation in hard soil @ Rs.300/cum (10)

    .C.C (1:4:8) bed for foundation @ Rs.2100/cum (05)

    .SSM in CM 1:6 for footings and basements @Rs.2500/cum (10)

    .B.B Masonry in superstructure with CM (1:6) @ Rs.3500/cum (15)

    .Internal plastering in CM 1:6 for brick walls and ceilings @ Rs.150/sq.mt (10)

2. Following table gives RL for a portion of 40m length of road. Compute the (15) quantity of earth work by mid-sectional area method. Road width=10m Side slope 2:1 in filling and 1.5:1 in cutting.

Distance(m)	100	104	108	112	116	120
RL of Ground	31	30.9	30.5	30.8	30.6	30.7
RL of Formation	32	Down gradient 1 in 20				

Distance (m)	124	128	132	136	140
RL of Ground	31.2	31.4	31.3	31	30.6
RL of Formation	Down gradient 1 in 20				

3. Write detailed specification for the following: (15)
   . R.C.C. work proportion (1:2:4)
   .Cement plastering in cement mortar 1:6
   .Mosaic tile flooring

4. Work out from the first principles the rate per unit of the following : (15)
   .Cement concrete bed for foundation 1:4:8
   .Ashlar stone masonry in CM 1:4
   .Mangalore tile roofing including Teak wood battens

5. Write short notes on the following : (15)
   .Tender and quotation
   .Earnest money deposit and security deposit
   .Measurement book and tools and plants

6. Prepare a detailed estimate of a rectangular manhole from fig.2 for the (15)
   following items:
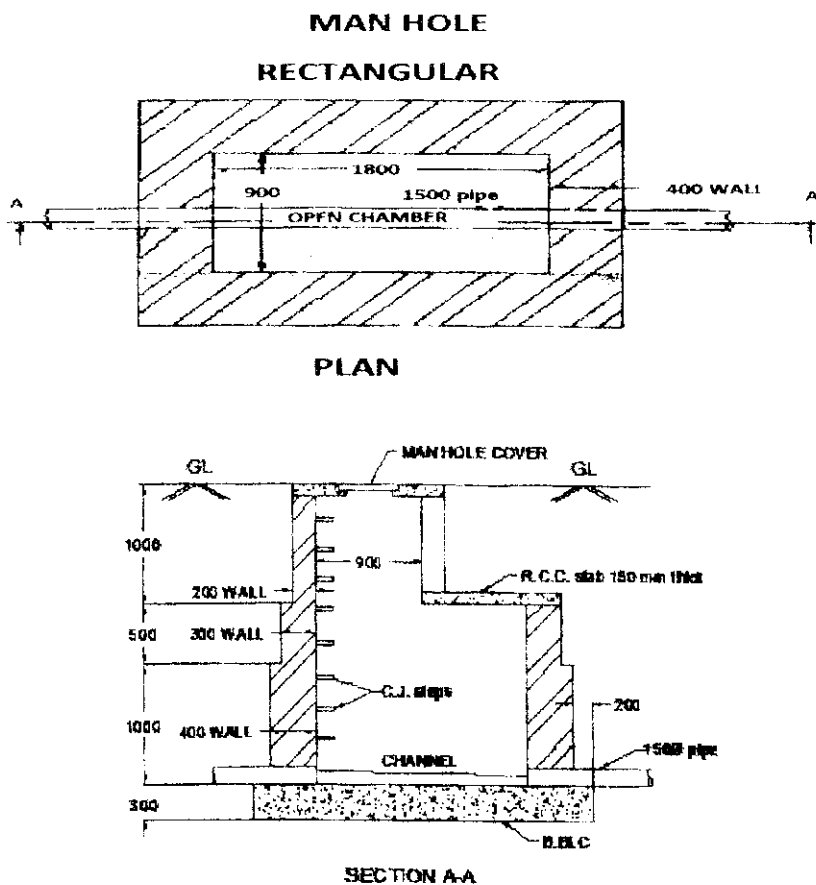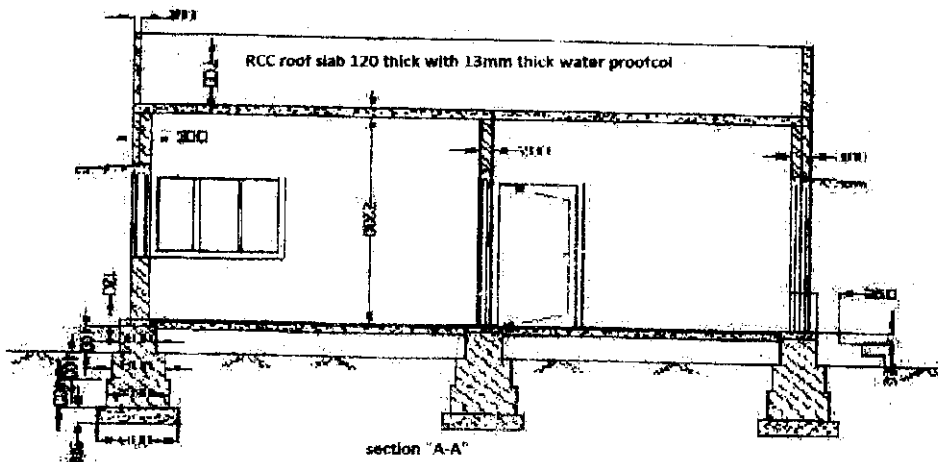   .Earth work excavation
   .Burnt brick masonry in CM 1:6

MAN HOLE

RECTANGULAR

PLAN

SECTION A-A

Fig.(2)

section "A-A"

Fig.1

RCC roof slab 120 thick with 13mm thick water proofcol

LIVING 4.2X3.6

KITCHEN 2.5X3.3

BED ROOM 4X3.6

LOBBY

TOILET 1.8X1.5

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