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Sixth Semester B.Arch. Degree Examination, Dec.2015/Jan.2016
Estimation and Costing

Time: 3 hrs.

Max. Marks:100

Note: Q. No.1 is compulsory and answer any FOUR questions from the remaining.

- 1 The accompanying Fig.Q1 shows the details of a travellers bungalow in a taluk headquarters. Prepare a detailed estimate for the below mentioned item of work by centre line method.
- (i) Earthwork excavation @ ₹120/cu.mt (05 Marks)
 - (ii) PCC 1:4:8 for bed concrete @ ₹1700/cu.mt. (05 Marks)
 - Size stone masonry in CM (1:8) in foundation at ₹1700/cu.mt. (10 Marks)
 - First class brickwork in CM (1:6) for superstructure upto roof bottom @ ₹ 2800/cu.mt. (10 Marks)
 - Calculate the centre line lengths and abstract of estimated cost. (10 Marks)
- 2 Write a detailed specification for any three of the following :
- RCC work (1 : 2 : 4)
 - Cement plastering in CM (1 : 6)
 - Earthwork in excavation in foundation
 - Brick work 1st class in CM (1 : 6) (15 Marks)
- 3 From the first principles arrive at the rate of any three of the below mentioned items of work
- Cement concrete bed for foundation (1 : 4 : 8)
 - Random Rubble Masonry in CM (1 : 6) in foundation.
 - Brick masonry in CM (1 : 6) in superstructures.
 - 12 mm Thick cement plastering (1 : 6) on new brickwork. (15 Marks)
- 4 Prepare a detailed estimate of a RCC column and footing from the given drawing Fig.Q4. Steel in detail and RCC work shall be calculated separately. (15 Marks)
- 5 Calculate the volume of earthwork for a proposed road having formation width 7.5m and side slope 1 : 1 using mid-sectional area method. (15 Marks)
- | | | | | | | | | | | | |
|---------------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|
| Chainage in m | 0.00 | 30.00 | 60.00 | 90.00 | 120.00 | 150.00 | 180.00 | 210.00 | 240.00 | 270.00 | 300.0 |
| GL in m | 10.55 | 10.50 | 10.40 | 10.35 | 10.20 | 10.00 | 9.80 | 9.65 | 9.60 | 9.40 | 9.20 |
- 6 Fig.Q6 shows the details of a septic tank with soak well. Prepare the estimate for
- Excavation
 - BBCC (1 : 6 : 12) in foundation
 - Brick masonry in CM (1 : 6) for septic tank
 - Brick work with openings for soak pit
 - 10 cm RCC slab (1 : 2 : 4) (15 Marks)
- 7 Explain any three of the following :
- Preliminary estimate / approximate estimate
 - Cube rate estimate
 - Work charged establishment
 - Contingencies (15 Marks)

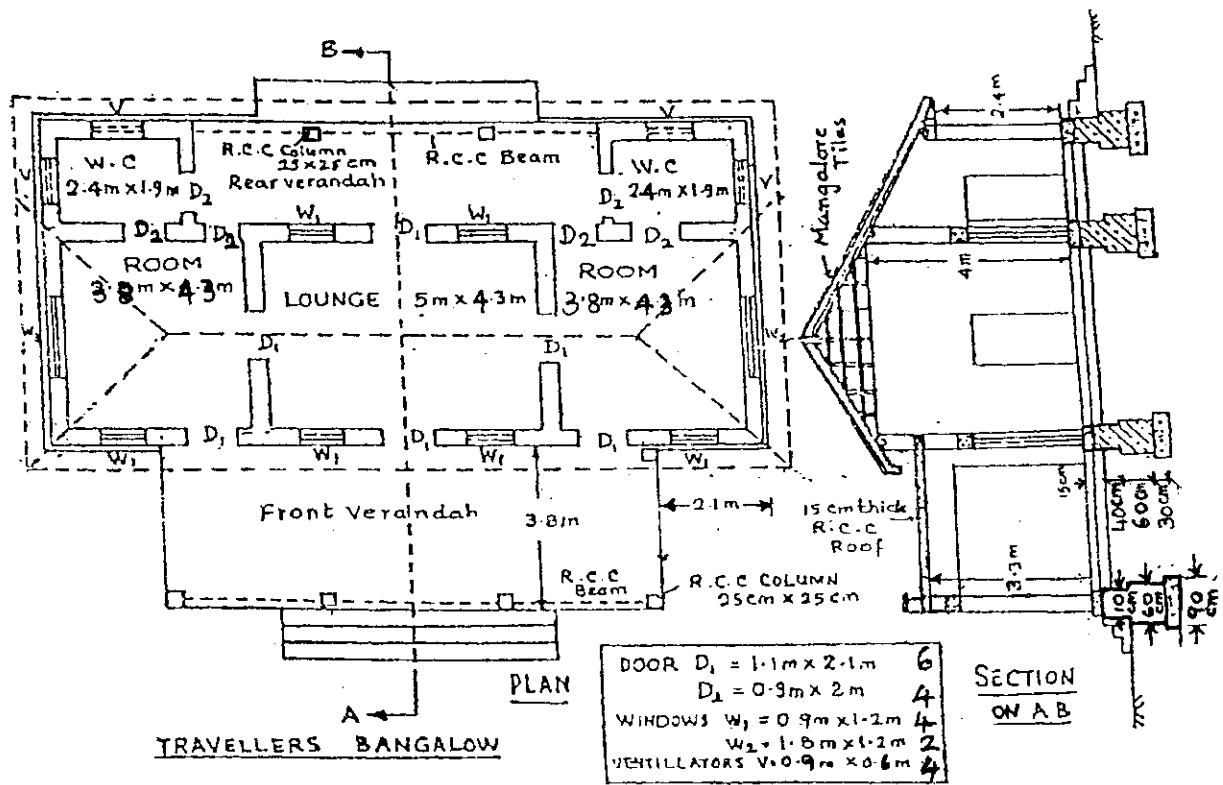


Fig.Q1

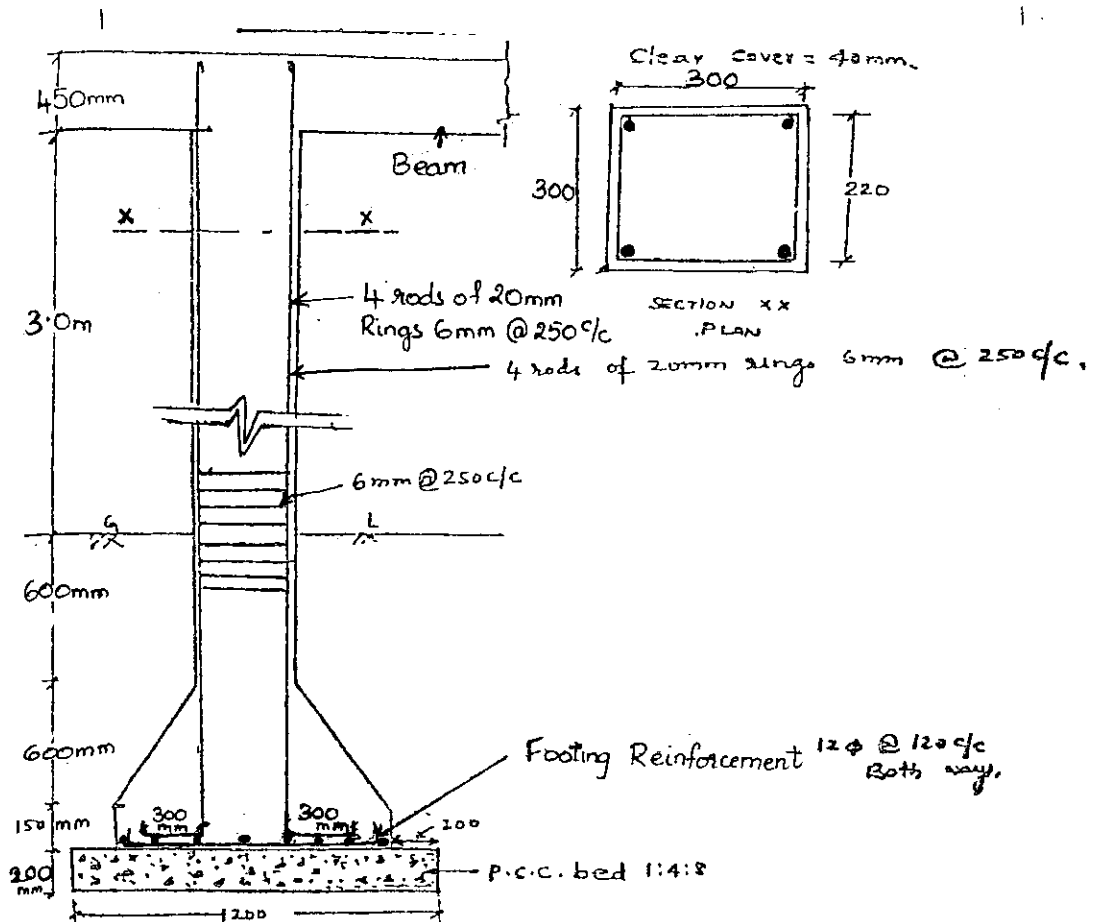


Fig.Q4

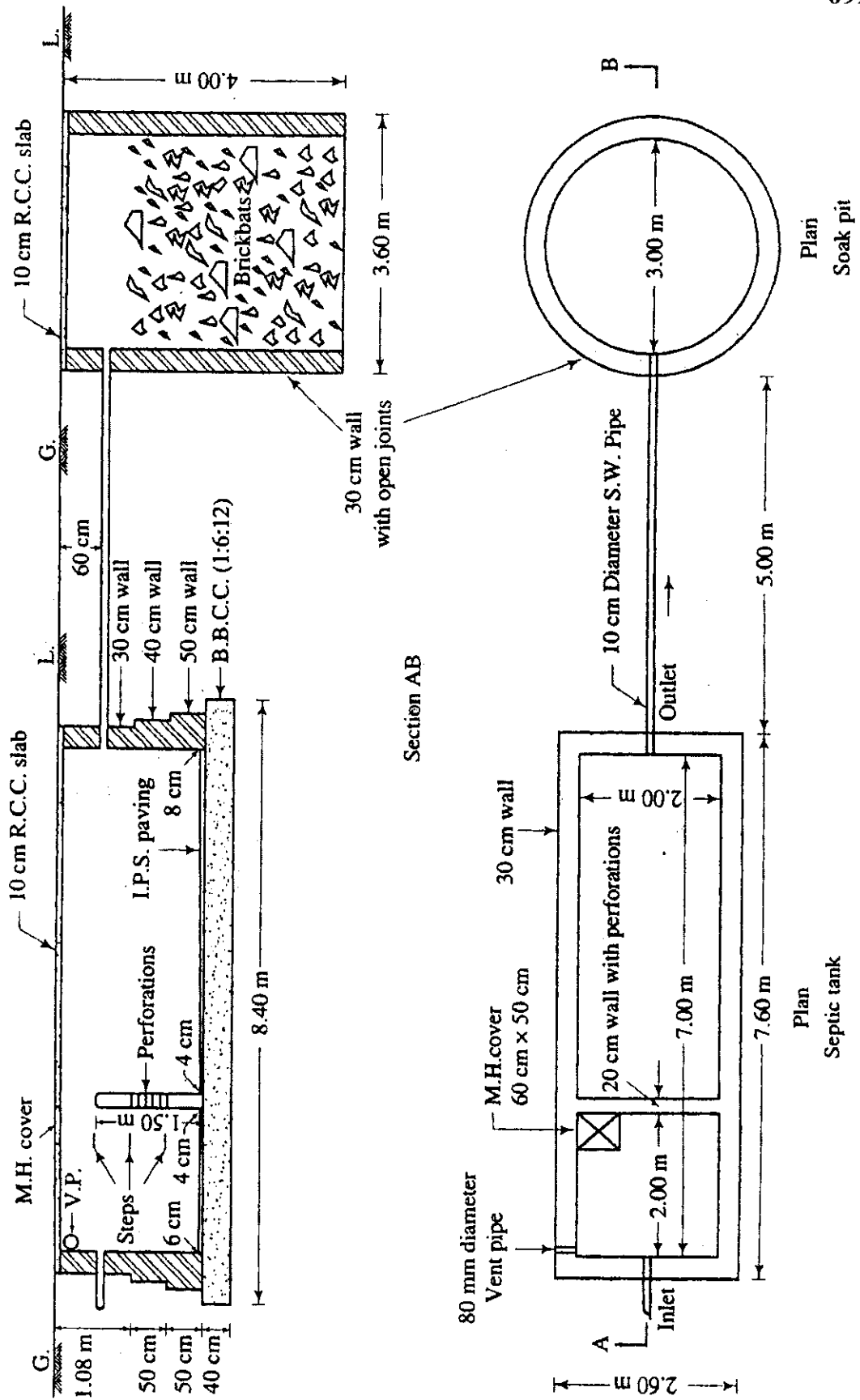


Fig.Q6
