

SCHOOL OF PLANNING AND ARCHITECTURE, VIJAYAWADA

SEMESTER END EXAMINATIONS (REGULAR), MAY-2016

B.Planning, I YEAR II SEMESTER

PLANNING PROJECT ESTIMATION (BPLN204)

Maximum Marks – 50

Time – 2.00 Hours

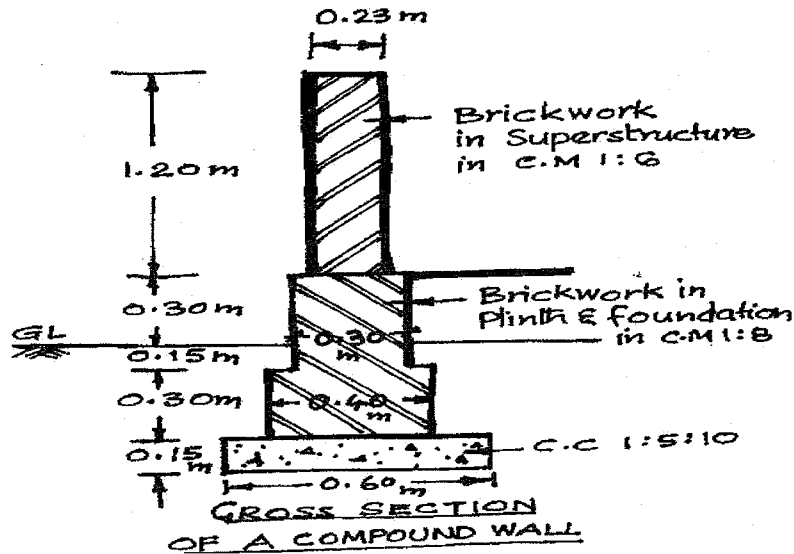
a) Answer any Two questions out of 1 to 4 questions.

b) Question No.5 is compulsory and answer any four out of six sub-questions.

Q1 Prepare the detailed estimate for the following items of work for a compound wall of 50m length as shown in fig.

(3x5=15M)

- a) Earth work excavation for foundation
- b) Brick Masonry in C.M.(1:6) for superstructure
- c) Brick Masonry in C.M.(1:8) for plinth and foundation.



Q2 Prepare data sheet and calculate the cost of brick work in CM (1:5) using country bricks – 1 cum Cost (15M) of materials at site

- a) Sand Rs. 675 per cum
- b) Bricks Rs. 5000 per 1000 nos.
- c) Cement Rs. 3400 / MT

Materials and labour required Unit – 1 cum

- 530 Nos Bricks
- 0.32 cum CM (1:5)
- 1.6 nos. Masons
- 2.8 nos. Mazdoors
- L.S. Sundries

Labour charges:

- Mason Rs. 450/ day
- Mazdoor Rs. 320/ day

Mixing charges Rs. 60 per cum

Q3 Determine the quantities of the following items of work for septic tank as shown in figure.

(3x5=15M)
P.T.O

- a) Calculate earth work excavation
- b) C.C.(1:3:6) for foundations of septic tank
- c) Brick work in CM (1:5) for side walls of tank

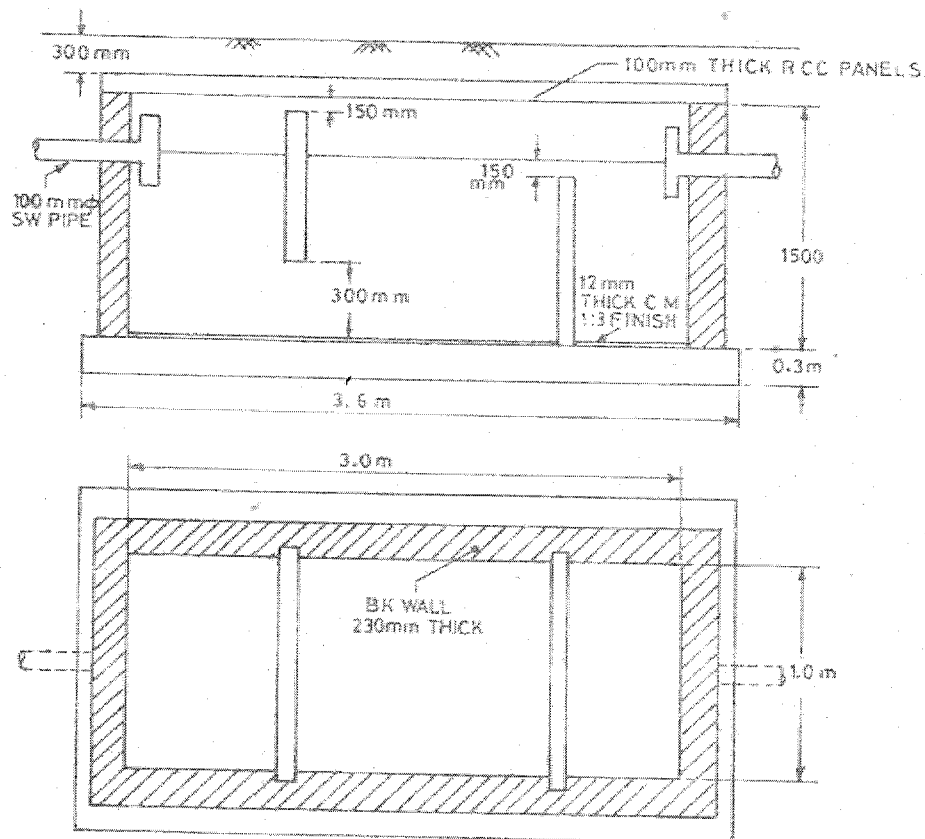
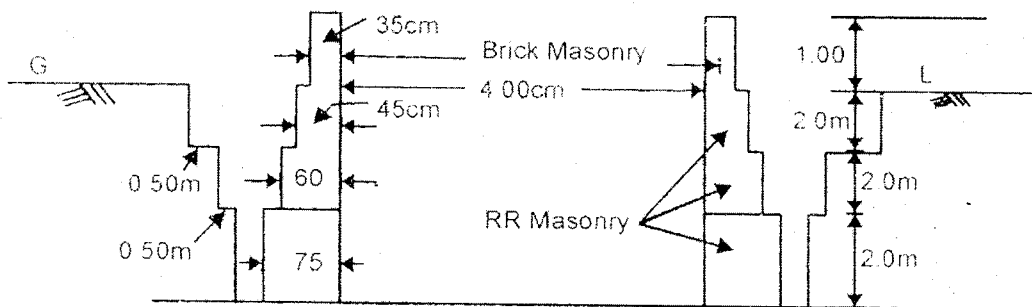


FIG. 23.4

Q4 For an open well shown in the sketch, calculate,

- Earth work excavation
- R.R. masonry
- Brick masonry

(3x5=15M)

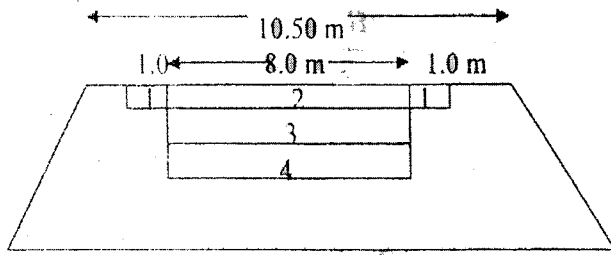


Q5 a) Prepare the detailed estimate of a W.B.M. road of 1.5km for the following items of work shown in figure

- Collection and supply of 65mm HBG metal
- Spreading of 40mm HBG metal
- Spreading of gravel for base course and shoulders.

(4x5=20M)

P.T.O



1. Gravel shoulders to a compacted thickness of 150 mm (Loose thickness 210mm)
2. 40 mm HBG metal to a compacted thickness of 150 mm (Loose thickness 200 mm)
3. 65 mm HBG metal to a compacted thickness of 175 mm (Loose thickness 225 mm)
4. Gravel sub base course to a compacted thickness of 200 mm (Loose thickness 250mm)

- b) What is Specification? Write the necessity of specification?
- c) Write the formats for preparation of detailed and abstract estimation
- d) Estimate an approximate cost of a proposed building for the following.
 - i) Plinth area – 200 Sq.m.
 - ii) Cost per unit area – Rs. 25000 per Sq.m.
 - iii) Electrification at 7.5%
 - iv) Water supply and sanitation 12.5%
 - v) Architectural features 1 ½ %
 - vi) Unforeseen charges 2 %
 - vii) P.S. and contingencies 2 %
- e) The following table shows the area of consecutive contours. The contour interval is equal to 4m. Calculate the capacity of reservoir by Simpson's rule.

| Contour No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Area in m ² | 300 | 350 | 400 | 390 | 385 | 370 | 360 | 350 | 330 |

- f) Calculate the total centerline length of building as shown in figure and also calculate the quantity of earth work excavation for foundation and brick masonry in CM(1:6)

