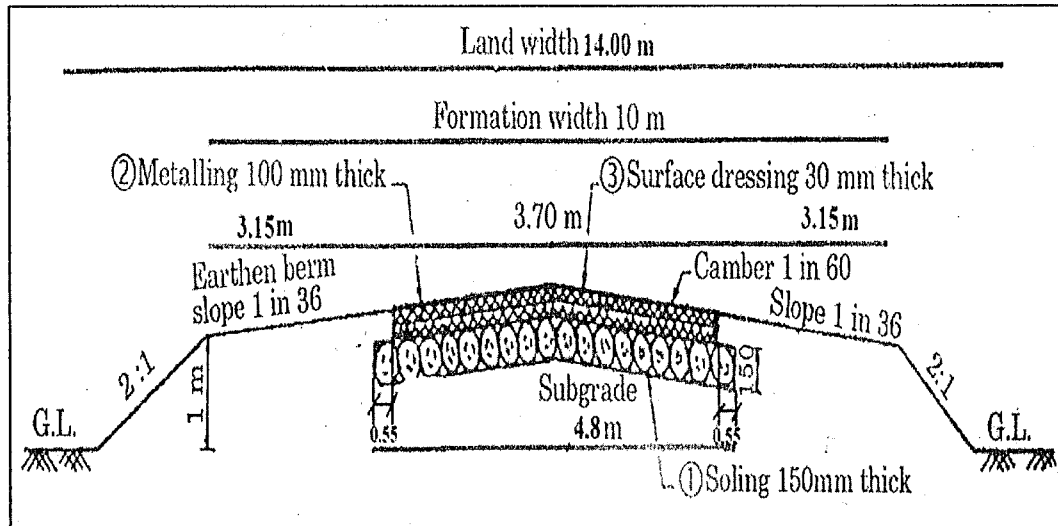
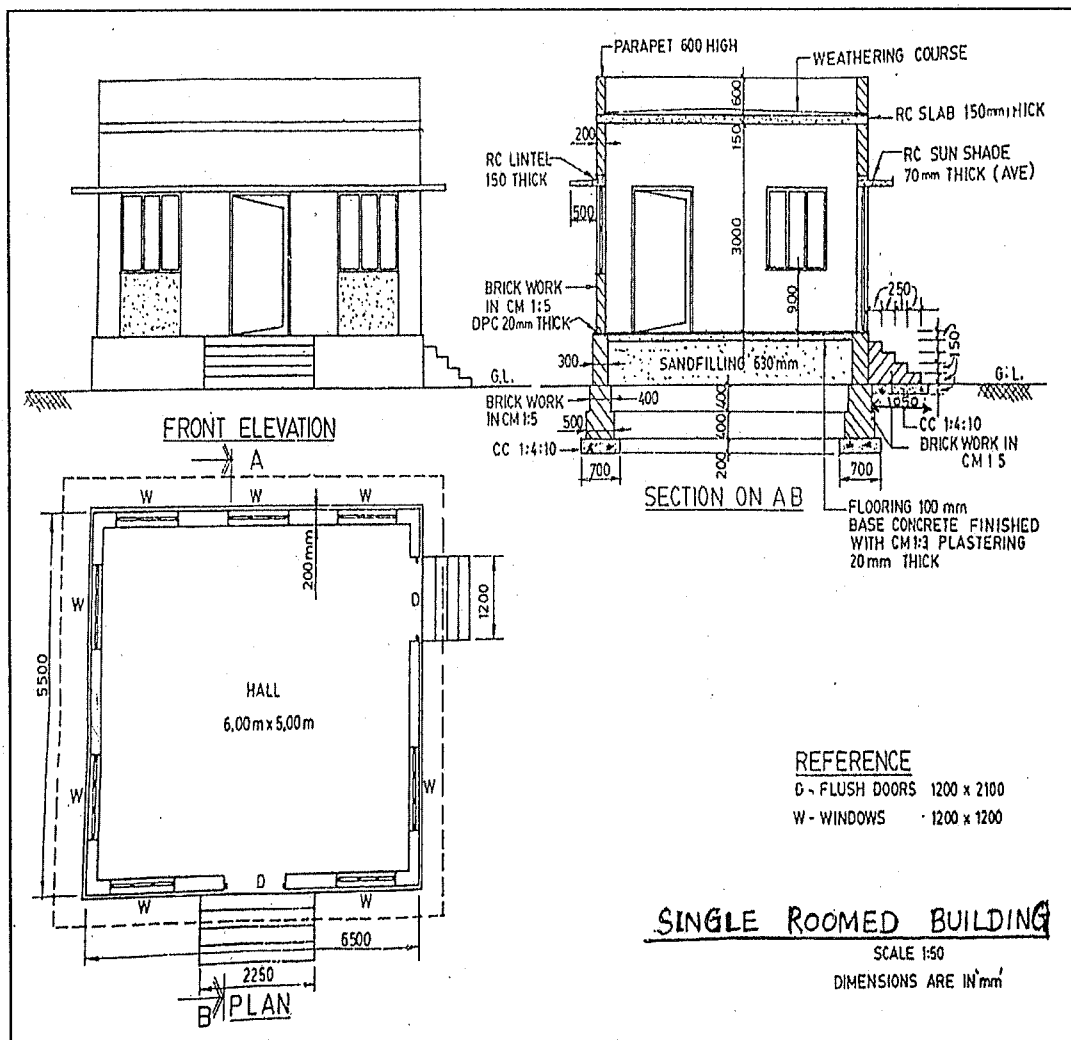


SKETCH - 1



SKETCH - 2



1652

October 2024

Time - Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART - A

1. What is revised estimate?
2. How much cement is required to prepare 1m³ of CM 1:4 mix?
3. What is Standard data book?
4. Prepare the data for lime mortar 1:2 - 1m³
lime - Rs.1143/ m³
sand - Rs.460/ m³
5. When will you provide lump sum provision in abstract estimate?
6. List any six items of work in a building to be constructed in a sequence.
7. What is meant by squaring dimension?
8. Mention the various columns in dimension paper.
9. Define book value.
10. What is meant by net income?

[Turn over....

PART - B

11. (a) The actual expenditure incurred in the construction of a flat roofed residential building having a plinth area of 75 m² and height 4 m is Rs. 49.5 lakhs. It is proposed to construct another similar building in the same locality with a plinth area of 90 m² and height 3.45 m. Estimate the approximate amount required for the proposed building. Assume the increase in the cost of materials and labour as 20%.

(Or)

(b) Write the general specification for a concrete road project.

12. (a) Prepare the data for weathering course with broken jelly in pure slaked lime over RCC roof slab -10m³

Materials and Labours Required:

Weathering course with 20mm broken jelly - 10m³

Broken jelly 20mm size	-12.8m ³
Slaked lime	-5m ³
Mason I class	-1.8 Nos.
Mazdoor I class	-17.7 Nos.
Mazdoor II class	-14.1 Nos.

Cost of materials and labours at site:

Broken jelly 20mm size	-Rs.370/m ³
Slaked lime	-Rs.765/m ³
Mason I class	-Rs. 500 each/day
Mazdoor I class	-Rs.450 each/day
Mazdoor II class	-Rs.350 each/ day

(Or)

(b) Prepare data for laying WBM Road, by spreading IRC 50 mm size and IRC 40 mm size broken stone in equal proportions to an average thickness of 100 mm with proper camber and gradient including hand packing, watering and compaction with power roller as per specifications: Rate for 10 m².

Requirement and cost of materials:

Broken stone IRC 50 mm size	- 0.5 m ³
Broken stone IRC 40 mm size	- 0.5 m ³
Reconditioning existing road, spreading metal and rolling including watering etc.	-Ls Rs. 1300

Cost of materials:

Broken stone IRC 50mm size	- Rs.700 /m ³
Broken stone IRC 40mm size	- Rs.950 /m ³

13. (a) Taking off quantities using Trade system for the following works for Water Bound Macadam road given in the Sketch-1.
(i) Earth filling for embankment.
(ii) Supplying HBG soling stone 150 mm size including stocking for pre-measurement.
(iii) Supplying and stocking of red gravel for pre-measurement.

(Or)

(b) Taking off quantities using Trade system for the following works for Water Bound Macadam road given in the Sketch-1.
(i) Supplying and stocking for pre measurement of IRC 40.
(ii) Surface dressing work pre coated chips.
(iii) Surface dressing with bitumen 80/100 grade.

14. (a) Prepare the detailed estimate of quantities for the following items for a single roomed building given in Sketch -2 by Group system.
(i) Earthwork excavation in foundation.
(ii) Cement concrete 1:4:8 in foundation.

(Or)

(b) Prepare the detailed estimate of quantities for the following items for a single roomed building given in Sketch -2 by Group system.
(i) Earth filling in basement.
(ii) Damp proof course.

15. (a) An estimate is prepared for a water supply system for a village. Prepare a report in support of the proposal.

(Or)

(b) A building was constructed 15 years back at a cost of Rs.10,00,000. As per the current P.W.D schedule of rate, the rate of material and labour increased by 30 % over the original cost. Find the present value of the building if the rate of depreciation is 2%.

[Turn over.....