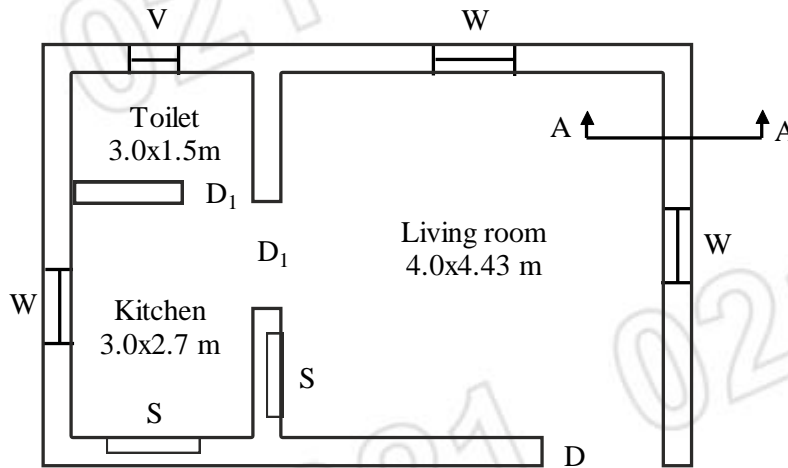




- Notes :
1. Answer **two** questions from Section A and **three** questions from section B.
 2. Question **one** from section A is compulsory.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answers wherever necessary with the help of neat sketches.
 5. Use of Non-programmable calculator is permitted.

SECTION – A

1. Estimate the quantities for the following items of work for the given plan and typical wall section in fig. 1. Prepare a centre line plan and indicate long wall and short walls separately. 25
- i) Earthwork in excavation in foundation trenches.
 - ii) IInd class brick masonry in c.m 1:6 foundation and plinth.
 - iii) IInd class brick masonry in c.m 1:5 in superstructure.
 - iv) 12mm thick internal cement plaster in c.m1:4 for ceiling & walls.
 - v) RCC 1:2:4 for lintels and roof slab.



PLAN Fig. 1

Schedule

Doors

D = 1.2 × 2.10 m

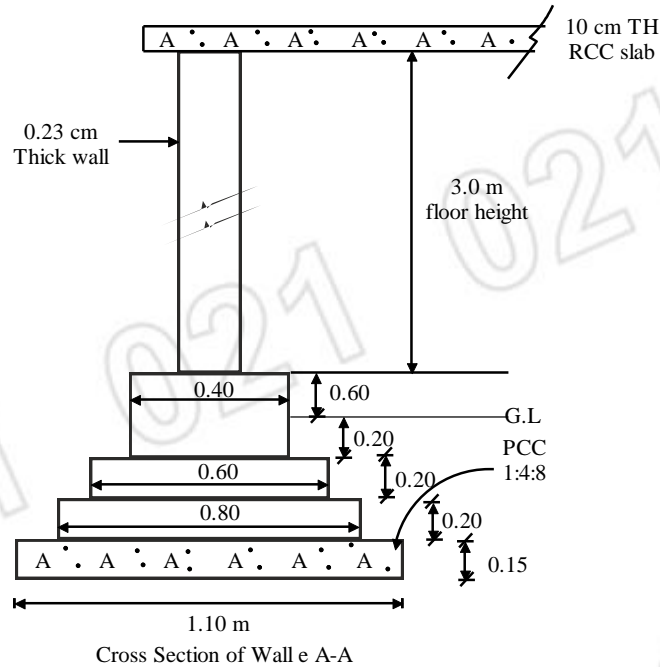
D₁ = 0.90 × 2.10m

Window

W = 1.0 × 1.50m

Shelves

S = 1.0 × 1.5m



2. a) Explain in detail the various methods of preparing an approximate estimate of a building. Illustrate with suitable examples. 7
- b) What are the various types of estimate. Discuss any two. 8
3. a) State the method for calculating the earthwork for road embankment and road cutting. 5
- b) The following table is an extract from the longitudinal section of road earthwork survey. Calculate the volume of earthwork by Mid sectional Area method. 10

CHAINASE (M)	R. L of Ground (M)	Formation R.L (M)
0	50.00	51.00
20	49.60	↑
40	49.85	(-) 1:50
60	49.30	↓
80	50.65	
100	50.95	

Formation width = 8.0m,
Side slope banking = 2:1
Cutting = 1.5:1

SECTION – B

4. a) State and explain the types of specification in detail (any two) 5
- b) Write detailed specification of the following **any two**. 8
- i) 12mm thick internal cement plaster in cm 1:4.
- ii) Excavation in foundation.
- iii) Laying PCC 1:4:8 wire in foundation.

5. a) Explain in details the major and minor factors affecting the rate analysis. 6
- b) Do the rate analysis for the following items in tabular form **any two**. 8
- i) 12mm thick internal plaster in cm 1:4 applying on wall surface.
- ii) First class brick masonry in cm 1:6 in superstructure.
- iii) RCC (1:2:4) with 2% steel excluding shuttering and centering.
6. a) Enumerate the different types of contracts and explain any two with its advantages and disadvantages. 7
- b) Define tender. Explain the procedure of submitting tender in three envelop form. 6
7. a) Define valuation. Explain the various purpose of valuation. 6
- b) A new building having four equal flats is constructed at a total cost of Rs. 20 lakhs on a plot of land costing Rs.4 lakhs. The owner expect 8% return on the cost of construction and 5% return on cost of land. 7
- Calculate the standard rent for each flat of the building assuming:
- i) Future life of building = 70 years.
- ii) Rate of interest on sinking fund I = 5%
- iii) Annual repair cost = 1.5% of cost of construction.
- iv) Other outgoing 30% of net return from the building.
8. Write a short notes on **any three**. 13
- i) Arbitration.
- ii) M.A.S. account.
- iii) Freehold and Leasehold property.
- iv) Unbalanced tender.
- v) Earnest money and security deposits.
