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09ARC66

Sixth Semester B.Arch. Degree Examination, July/August 2021

Time: 3 hrs.

Max. Marks:100

- Note:** 1. Answer any ONE from 1 to 2 and any FOUR from Q.No. 3 to 9.
 2. Follow written dimensions only.
 3. Missing data if any may be suitably assumed.

- 1 Fig.Q.1 shows the details of a small residential unit. Prepare a detailed estimate for below mentioned items of work by "Centre-Line Method".
- a. Centre-line calculation details. (10 Marks)
 - b. Earth work in excavation for foundation @ Rs.200 per cu M. (10 Marks)
 - c. PCC Bed for foundation (1:4:8) @ Rs.3250 per Cu M. (10 Marks)
 - d. Coursed Rubble Masonry in CM (1:6) for foundation and Plinth @ Rs.3600 per Cu M. (10 Marks)

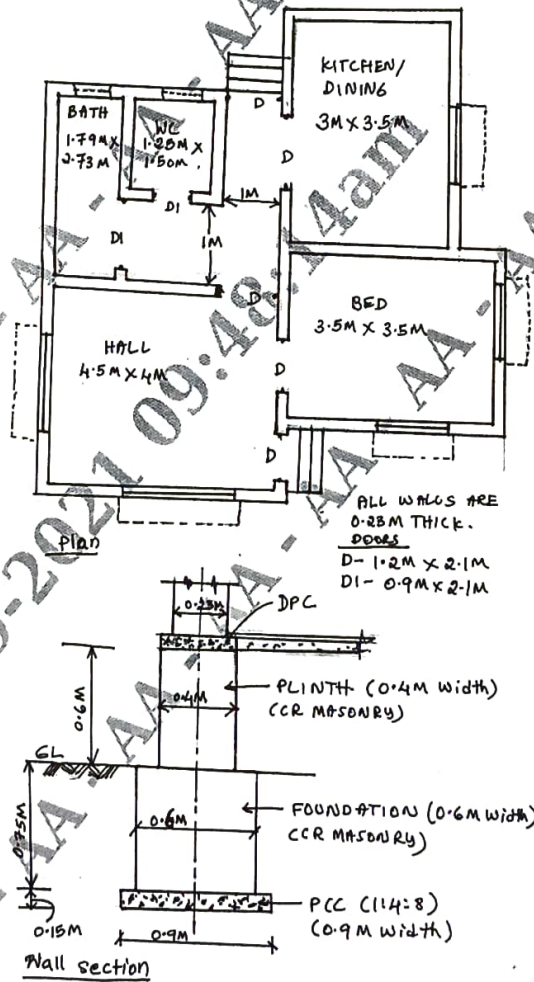


Fig.Q.1

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

- 2 The details of the residential buildings are shown in Fig.Q.2. Work out the quantities for the following items of work using centerline method.
- Earthwork in excavation (07 Marks)
 - PCC Bed 1:4:8 for Foundation Bed (07 Marks)
 - Size stone masonry in footing and plinth (07 Marks)
 - First class brickwork with cement mortar 1:6 in super structure. (07 Marks)
 - DPC (07 Marks)
 - Calculate total centerline length (05 Marks)

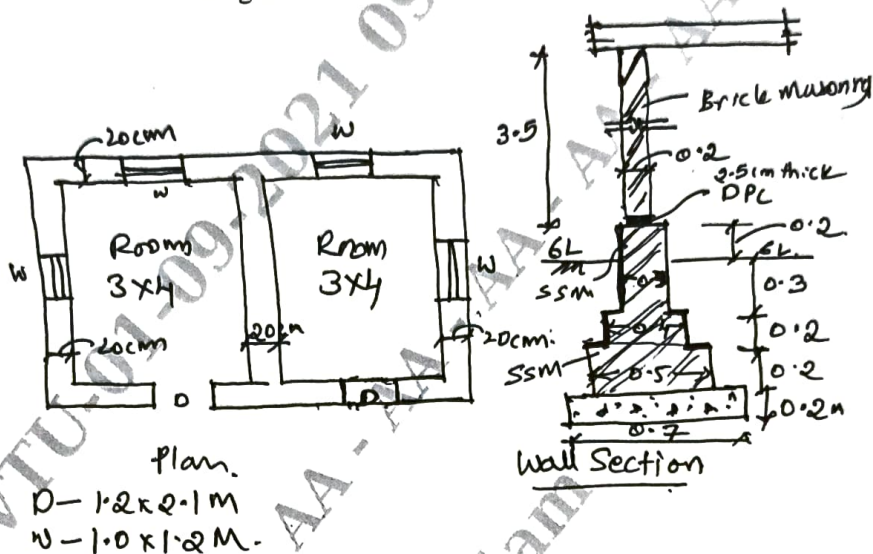


Fig.Q.2

- 3 Explain briefly :
- Explain briefly the types of estimate. (10 Marks)
 - Annual repair maintenance, annual maintenance AB and AM. (05 Marks)
- 4 Write short notes on:
- Schedule of Rates. (05 Marks)
 - Work-charged establishment. (05 Marks)
 - Contingencies. (05 Marks)
- 5 Write short notes on (any 3)
- Measurement Book
 - Lumpsum contract
 - Bill of quantities
 - Cube rate estimate (15 Marks)
- 6 Calculate the quantity of earth work for 400mt length for a portion of road in a uniform ground the height of bank at two ends begin 7 and 1.4. The formation width is 7.0mt and side slope 2 : 1 (horizontal to vertical). Assume that there is no transverse slope. Calculate the quantity using method - I. (15 Marks)

- 7 Fig.Q.7 shows the details of sump. Prepare the estimate for the following items of work.
- a. Earthwork in excavation @ $350/m^3$ (05 Marks)
 - b. PCC 1:3:6 for Bed concrete @ $4500/m^3$ (05 Marks)
 - c. BBM in CM 1:4 for walls @ $5000/m^3$ (05 Marks)

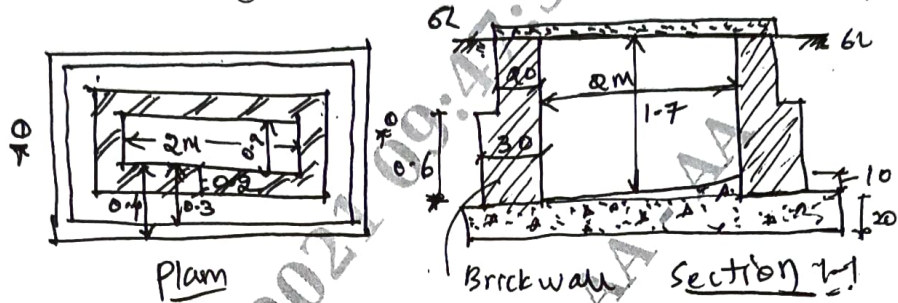


Fig.Q.7

- 8 What is specification? List out different types of specifications. Write general specification for Class-I type buildings. (15 Marks)

- 9 Fig.Q.9 shows the details of septic tank calculate the quantities for:
- a. Earthwork in excavation. (05 Marks)
 - b. PCC Bed in 1:4:8. (05 Marks)
 - c. First class brickwork in CM (1:6). (05 Marks)

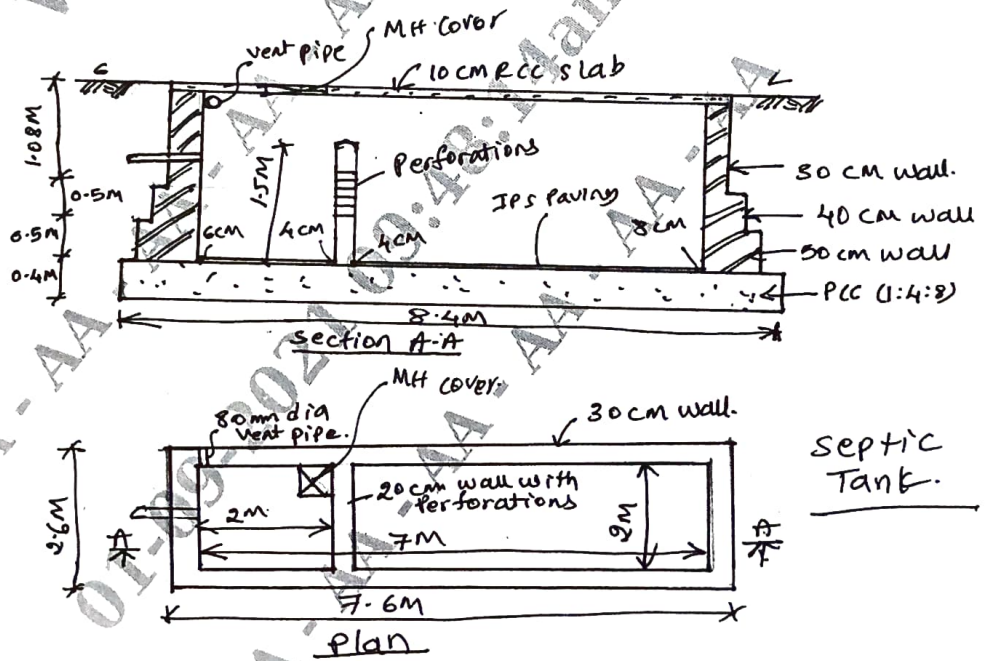


Fig.Q.9
