

USN

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



09ARC6.6

Sixth Semester B.Arch. Degree Examination, June/July 2019
Estimating and Costing

Time: 3 hrs.

Max. Marks:100

- Note: 1. Question No. 1 is compulsory.**
2. Answer any FOUR full questions from Q.No.2 to Q.No.8.
3. Assume any missing data.

- 1 The details of the residential buildings are shown in Fig.Q1. Work out the quantities for the following items of work using centerline method.
- a. Earthwork in excavation (07 Marks)
 - b. PCC Bed 1:4:8 for Foundation Bed (07 Marks)
 - c. Size stone masonry in footing and plinth (07 Marks)
 - d. First class brickwork with cement mortar 1:6 in super structure. (07 Marks)
 - e. DPC (07 Marks)
 - f. Calculate total centerline length (05 Marks)

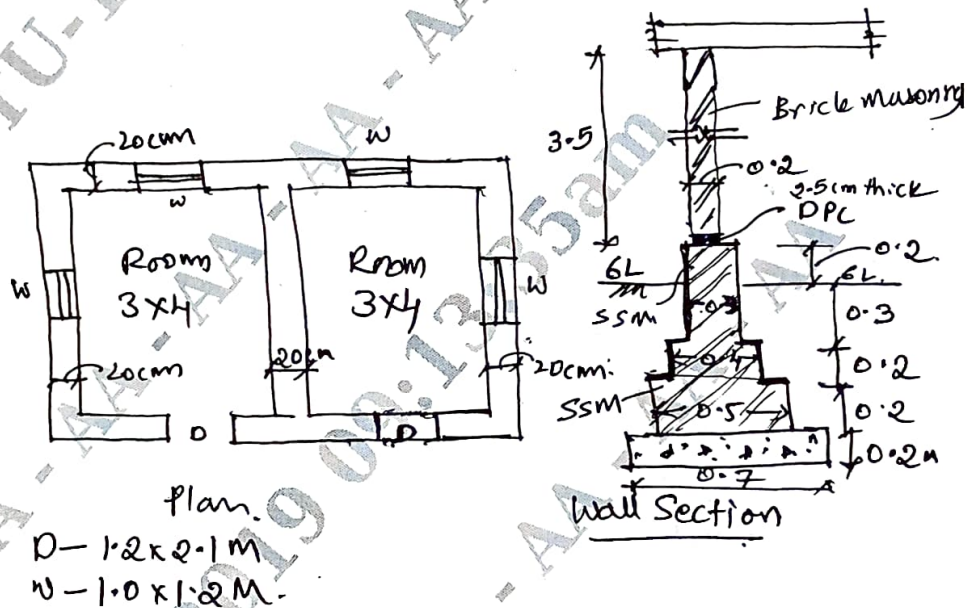


Fig.Q1

- 2 Write the detailed technical specifications for any 3 of the below mentioned items:
- a. Ashlar stone masonry in CM 1:6 (05 Marks)
 - b. Plastering in cement mortar (05 Marks)
 - c. First class Brickwork for superstructure (05 Marks)
 - d. Mosaic flooring. (05 Marks)
- 3 Write short notes on (any 3) :
- a. Contingencies (05 Marks)
 - b. Work-changed Establishment (05 Marks)
 - c. Schedule of rates (05 Marks)
 - d. Administrative sanction (05 Marks)

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.

- 4 Calculate the quantity of earthwork for a portion of road for 400m length from the following data. Formation width of the road is 10 metre. Side slopes are 2:1 in banking $1\frac{1}{2}$: 1 in cutting.

Station	Distance in metre	RL of Ground	RL of formation
25	1000	51.00	52
26	1040	50.90	52
27	1080	50.50	52
28	1120	50.80	52
29	1160	50.60	52
30	1200	50.70	Downward gradient of 1 in 200
31	1240	51.20	
32	1280	51.40	52
33	1320	51.30	52
34	1360	51.00	52
35	1400	50.60	52

(15 Marks)

- 5 Write short notes on (any 3)

- Measurement Book
- Lumpsum contract
- Bill of quantities
- Cube rate estimate

(15 Marks)

- 6 Calculate the quantities for RCC Beam of 8 m clear span and 75×40cm in section from the given drawings (Fig.Q6). Steel in detail concrete work shall be calculated separately.

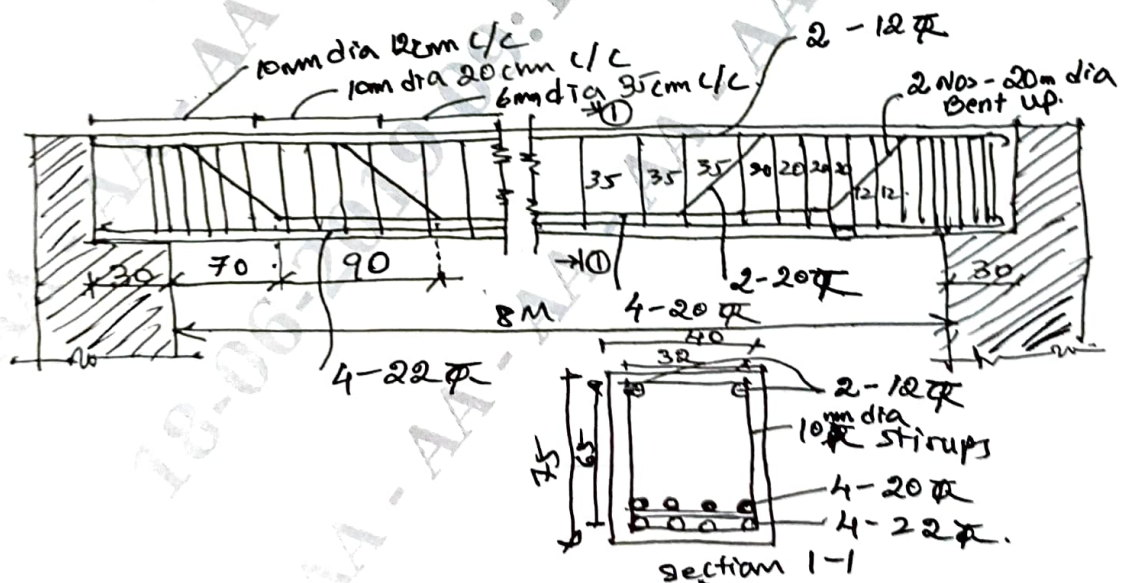


Fig.Q6

(15 Marks)



- 7 Fig.Q7 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)

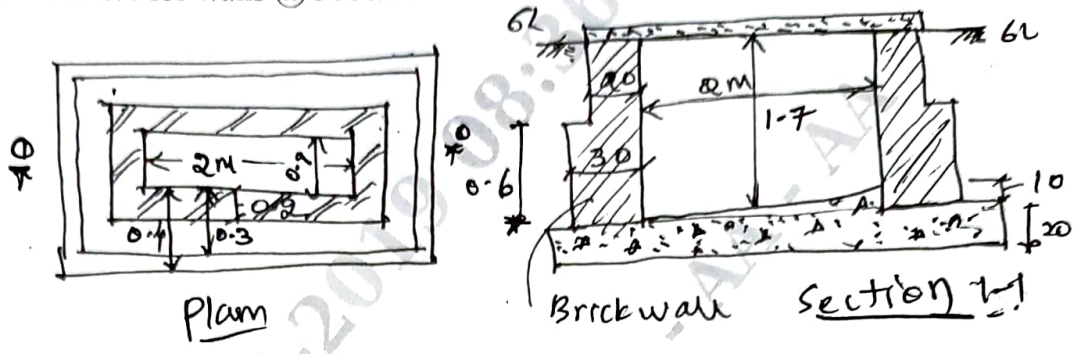


Fig.Q7

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