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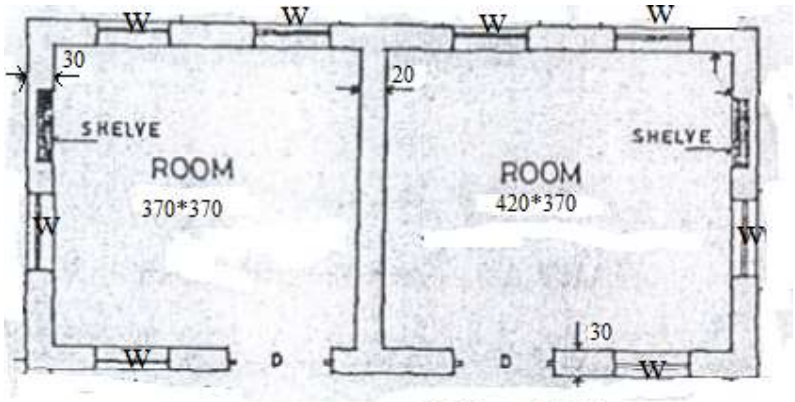
CIVIL ENGINEERING DEPARTMENT **DATE: 28th July, 2022**
OPTION: CST
YEAR2-SEM:2

CSTQC601: EXERCISE5- QUANTITY AND COST ESTIMATION

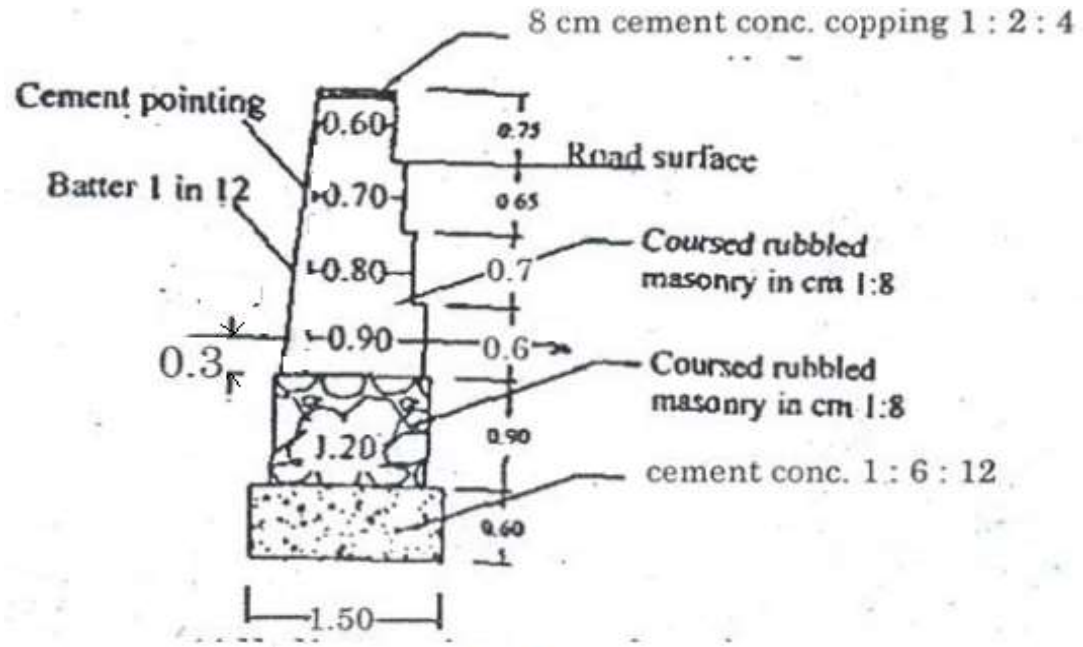
QUESTION 1:

Estimate the Retaining wall constructed on the whole side of building shown on plan below:



Plan

D:Doors:120x220
W-Window: 90x150
S-Shelves: 90x 180



All dimensions are in m

Retaining wall section

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QUESTION 2:

Prepare an approximate estimate of building project with total plinth area of all building is 800 sqm. and from following data.

i) Plinth area rate Rwf. 4500 per sqm

ii) ii) Cost of water supply @7½% of cost of building.

iii) Cost of Sanitary and Electrical installations each @ 7½% of cost of building.

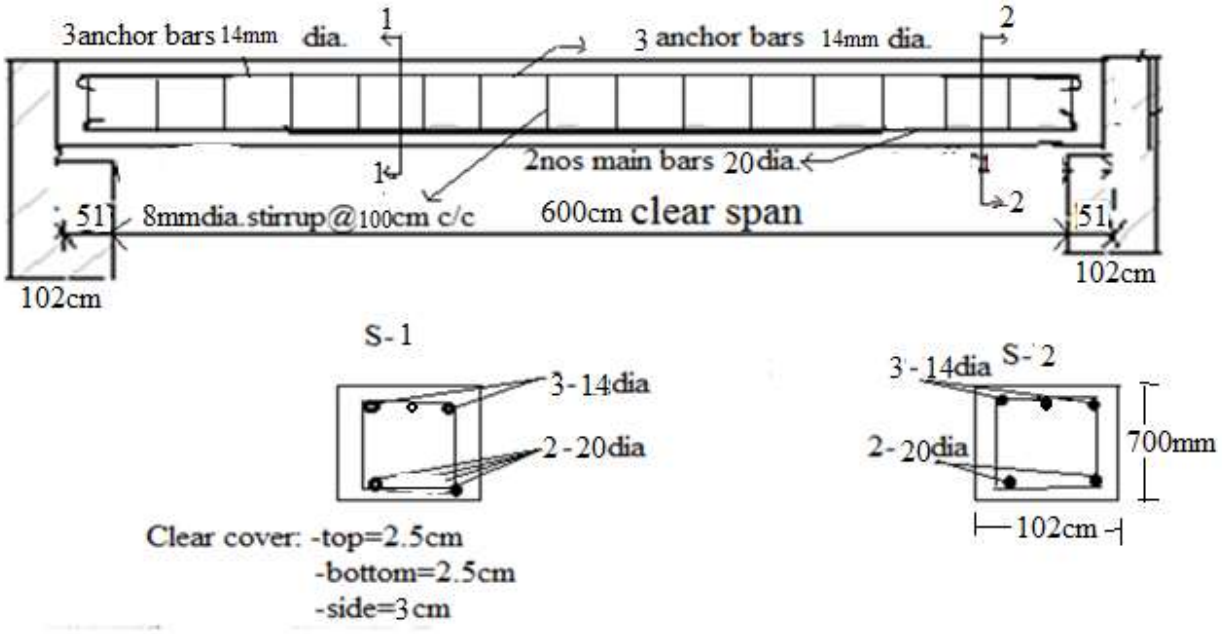
iv) iv) Cost of architectural features @1% of building cost.

v) Cost of roads and lawns @5% of building cost.

vi) Cost of P.S. and contingencies @4% of building cost. Determine the total cost of building project.

QUESTION 3:

Prepare a detailed estimate for reinforcements and the bar bending schedule of the R.C.C Beam below. Use rate of 20, 000Frw per meter length of steel bars.



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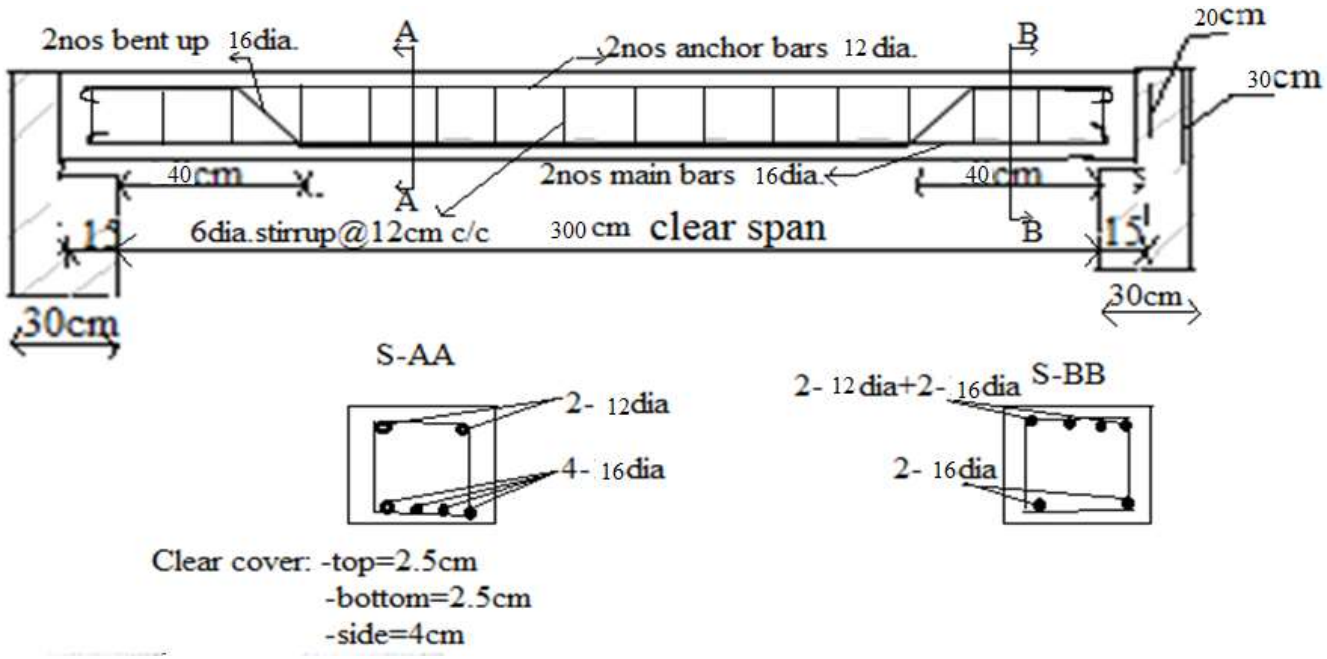
QUESTION 4:

Discuss the purpose of Rate Analysis and how it is conducted.

QUESTION 5: Prepare a detailed estimate for reinforcements and the bar bending schedule of the R.C.C Beam below. Use rate of 10,500Rwf/quintal of steel bars.



QUESTION 6:

A R.C.C roof Slab is being constructed at a 2nd storey of a building. The slab is 7.00m length to 4.00m width and 30cm thick. Determine the weight of the steel bars needed in this slab.

GOOD LUCK!