BACHELOR OF ARCHITECTURE THIRD YEAR SECOND SEMESTER - 2019
SUBJECT: Quantity Surveying & Specifications

Time: Three Hours   Full marks: 100

PART – I - 50 Marks

Question no. 1 is COMPULSORY. Please answer any TWO from the rest.

1. Define the following: (4 X 5 = 20)
   a) Specification
   b) Tender
   c) Contract
   d) Valuation

2. State the different types of Estimates along with their brief description. Draw the differences between Revised and Supplementary Estimates. (10 + 5 = 15)

3. Mention the different types of Specifications and also provide the specification of 'Damp Proof Course' and 'Earthwork in excavation of foundation trenches'. (5 + 10 = 15)

4. Explain in detail the ways in which a Tender is invited? How can a lowest bid Tender be rejected? (10 + 5 = 15)

PART – II - 50 Marks

1. In a certain locality, the cost of construction of a 100 sqm plinth area building costs Rs.5,25,000. The height of the building from ground level to the top of roof is 3.5m and the height of a parapet wall on the terrace is 90 cm.
   Now, find the cost of similar building of plinth area equal to 175sqm to be constructed in the same locality by both 'plinth area rate' and 'volume rate'. (10 marks)

2. Draw a preliminary estimate of an office building for 350 people. The carpet area required by each person is 1.20sqm. Assume that the area occupied by corridor, verandah lavatories etc. is 22% of the built up area and that occupied by walls and columns is 8.5% of the same.
   Take into consideration,
   i.   The plinth area rate = Rs.1100 per sqm.
   ii.   Cost of water supply = 7% of the building cost.
   iii. Cost of sanitation = 9% of the building cost.
   iv.   Cost of electrification = 11% of the building cost.
   v.   Cost of approach road and boundary wall = 5% of the building cost.
   vi.   Contingency and work-charged establishment shall be 6% and 3% of the total cost respectively.
                                                                              (15 marks)

3. From the drawings provided below determine the estimate of quantities of:
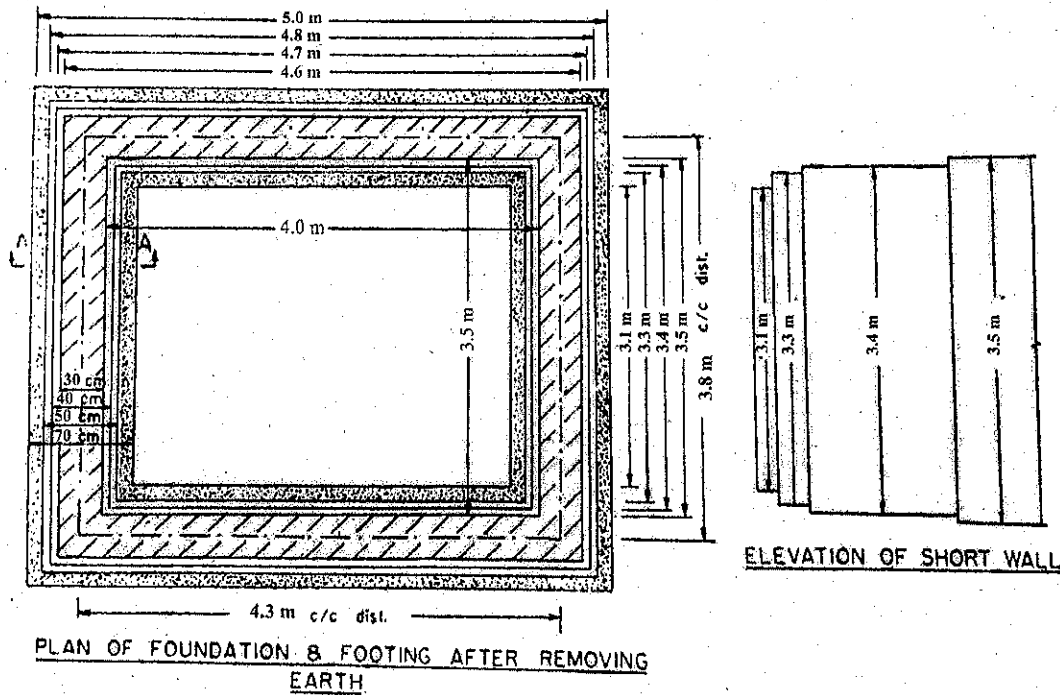   - i.   Earthwork in excavation in foundation
   - ii. Lime concrete in foundation
   - iii. Brickwork in foundation and plinth

   Use both 'Centre line method' & 'Long and short method' for deriving the estimates.   (25 marks)
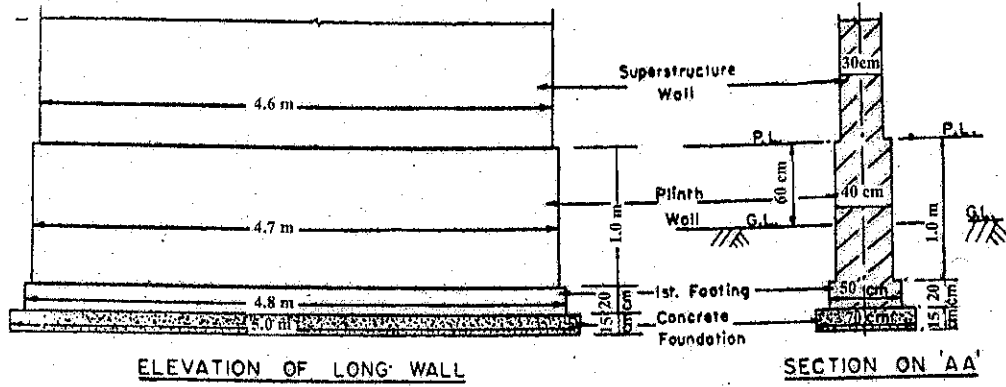
ELEVATION OF LONG WALL

SECTION ON 'AA'

PLAN OF FOUNDATION & FOOTING AFTER REMOVING EARTH

ELEVATION OF SHORT WALL