



SCHOOL OF PLANNING AND ARCHITECTURE, VIJAYAWADA

SEMESTER END EXAMINATIONS (SUPPLEMENTARY) MAY - 2017

B. ARCH III YEAR VI SEMESTER

BUILDING MANAGEMENT (BM-6)
(QUANTITIES AND ESTIMATIONS)

Maximum Marks – 60

Time – 2 ½ Hours

a) Answer any Two questions out of 1 to 4 questions.

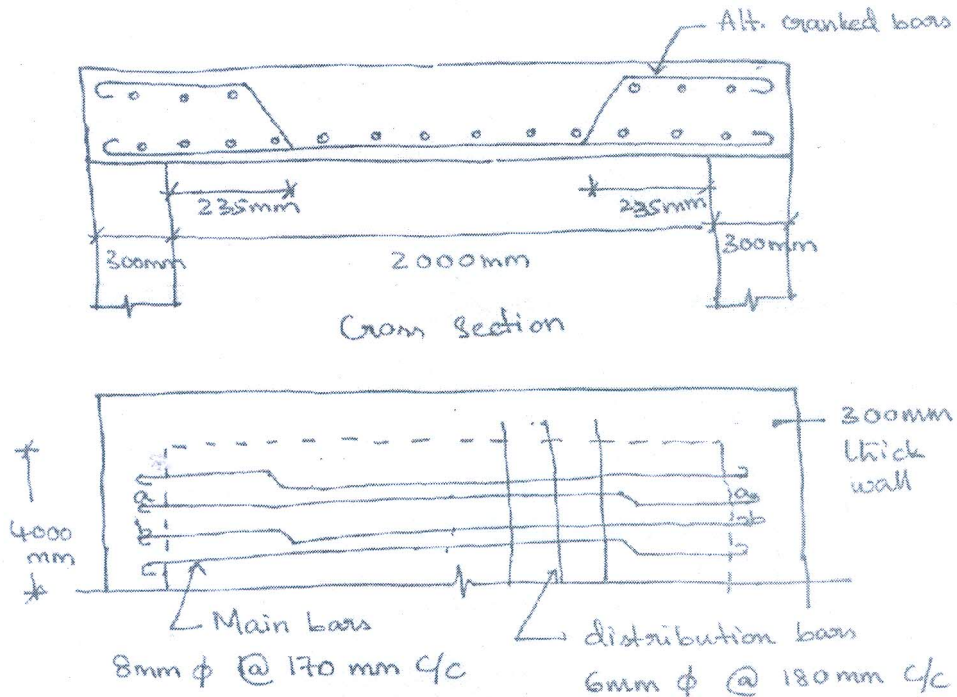
b) Question No.5 is compulsory and answer any four out of six sub-questions.

- Q1. a) Briefly list down the general rules of measurement and principle of units in a construction project. (10M)
- b) Write in detail rules and methods of measurement for the following works: (10M)
- Earthwork
 - Brickwork
 - Deductions for super structure

Q2. Explain the methods of preparation of approximate estimates. List down the basic differences and advantages. (10+10)

Q3. Provide a detailed estimate of a RCC Slab.(Refer Fig.1).Prepare the bar bending schedule (15+5)

Clear Cover Top : 15mm
Clear Cover Bottom : 15mm
Clear Cover Ends/sides : 25mm
Slab Thickness : 120mm
Internal room dimension : 4000x2000 mm
Weight of steel/m : 6mm ϕ = 0.22 kg/m
8mm ϕ = 0.39 kg/m



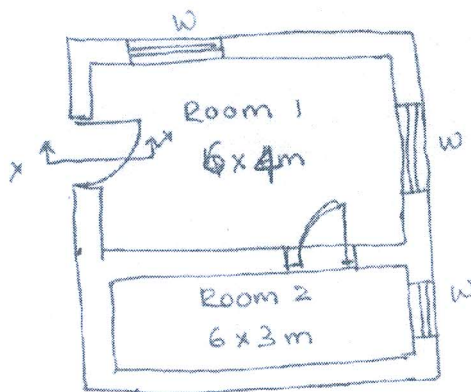
Plan of RCC Slab

FIG : 1

Q4. Calculate the detailed estimate for the double room building (Load bearing type structure) using (10+10) long wall and short wall method. (Refer Fig.2)

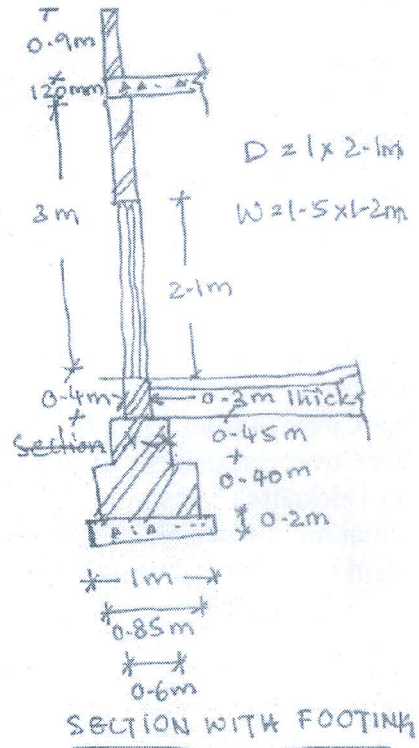
Calculate abstract estimate.

- i) Earthwork excavation @ Rs.465 per 10m³
- ii) Cement Concrete (1:4:8) @ Rs.1545 per cu.m
- iii) Brick masonry in country Bricks of standard size in CM(1:8) @ Rs.2291 per cu.m
- iv) RCC.for lintels, beams, slabs etc. (1:2:4) @ Rs.6030 per cu.m
- v) Plastering to all exposed surfaces of brick work and basement with C.M (1:5) @ Rs.582 per 10m²



PLAN

Fig: 2.



Q5. Write short notes on any FOUR of the following:

(4x5=20M)

- i) What do you understand by Analysis of Rates?
- ii) Define work charged Establishments.
- iii) Define Abstract Estimate
- iv) Estimate the quantities of brick work and plastering required in a compound wall 30m of total length, 1.5m high and 0.3m thick. Calculate the cost if rate of brickwork is Rs.32.00 per Cu.m and of plastering is Rs.8.50 per Sq.m
- v) Define Plinth Area Rate
- vi) Calculate the Quantity of material for the following items
 - a. RCC work (1:2:4) for 20m³
 - b. RCC work (1:3:6) for 15m³