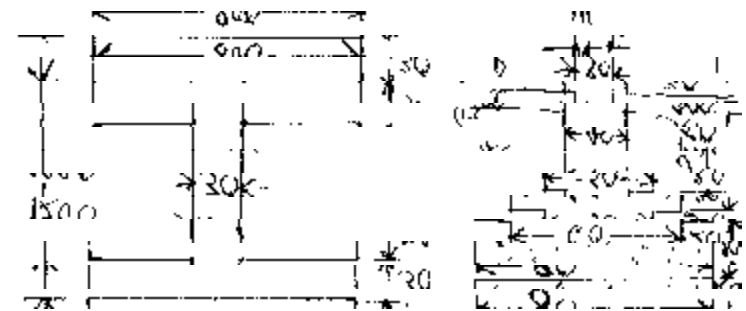
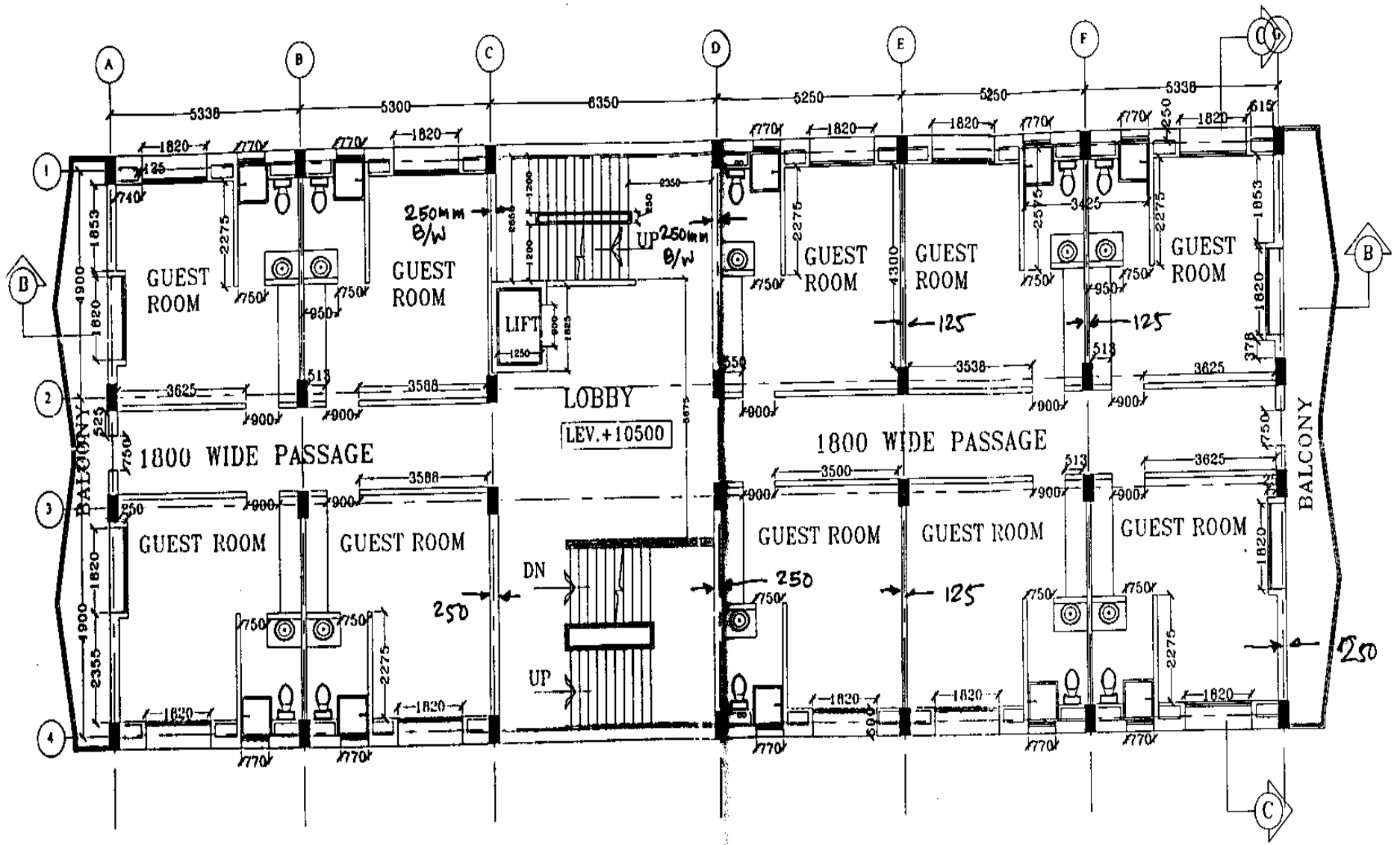


2. Calculate the quantity of reinforcement required for a rectangular beam of (300 x 400) mm, 4 Nos of Main reinforcement of 20mm diameter, two bar bent up at 45° from the 1/3 of support which is 30 cm. Two Hanger bar of 12 mm f which is situated at compression zone. The stirrup are 8mm f spacing at 150mm c/c all clear cover is 25mm. The length of the beam is 5m. use M_{20} and F_{415} HYSD bars. 15
3. Calculate the quantities of the following items of work in the figure shown below.
 - (a) Earthwork in excavation in foundation.
 - (b) Coment Concrete in foundation.
 - (c) 1st class brick work in foundation and plinth.
 - (d) 1st class brickwork in superstructure.



— x —



THIRD FLOOR PLAN

(FIG-1)

BACHELOR OF CONSTRUCTION ENGG. EXAMINATION, 2009

(3rd year, 2nd Semester)

ESTIMATION AND PRICING

Time : Three hours

Full Marks : 100

(50 marks for each part)

PART - I

1. From the attached plan (Fig-1) estimate the below mentioned item.
 - (i) Quantity of 250mm.Thk. brick wall
 - (b) Quantity of 125mm thk. brick wall
 - (c) Quantity of flooring
 - (d) Outer wall plaster.

Estimation of quantity should be done with proper break up. 30
2. Write a short note on PWD schedule of rate of West Bengal. 5
3. Write a short note on "Analysis of rate" of civil engineering item. What are the three major inputs required for analysis of a item and describe all of them with a example. 15

(PTO)

PART - II

Answer question no. 1 and any one from the rest.

1. Define the following terms. 5x3=15
 - i) Preliminary Estimate and detail Estimate.
 - ii) Necessity of Estimate for a Building
 - iii) Plinth area and carpet area
 - (iv) Long wall short wall method and centre line method.
 - (iv) Floor area & FAR

A two room building plan as shown in figure. Estimate the quantity of the following items. 20

 - a) Earthwork in excavation in foundation.
 - b) Lime concrete in foundation
 - c) First class brick work in foundation and plinth
 - d) 2.5cm thick DPC
 - e) 200mm thick P.C.C. in floor.
 - f) 1st class brick work in cement mortar in superstructure
 - g) 200 x 200mm intel around the building.