

3rd sem/EC-1/VST/2022(W)  
( Theory-4)

Full Marks - 80

Time-3 Hours

Answer any five questions including Q. No. 1 & 2.

The figures in the right-hand margin indicate marks.

1. Answer all questions: [2 × 10 = 20]

- (a) Write down volume of a bag of cement.
- (b) What do you mean by lead and lift?
- (c) Write down the unit of following items:
  - (i) D.P.C. (ii) Reinforcement
- (d) Define carpet area of a building.
- (e) What is the standard weight of a 16 mm diameter bar of 1 m length ?
- (f) Classify labours as per OPWD.
- (g) Define salvage value.
- (h) What do you mean by sinking fund?
- (i) Define Technical Sanction.
- (j) Write down size of a forma or batch box.

2. Answer any six questions . [5 × 6 = 30]

- (a) Write duties and responsibilities of a Junior Engineer.
- (b) Calculate dry material for cement plaster (1:6) of 100m<sup>2</sup> area in a building.
- (c) Differentiate between Revised estimate and Supplementary estimate.
- (d) Analyse the rate of 1 Cum of (1:2:4) Cement Concrete with following rate of materials and follow latest wages of labours as per OPWD.  
Cement - Rs 600/Quintal  
Sand-Rs 140/Cum  
Chips-1150/Cum
- (e) Define: (i) Depreciation (ii) Obsolescence  
(iii) Scrap Value (iv) Value (v) Cost
- (f) Write short note on:
  - (i) wall and Long wall method
  - (ii) Centre line method
- (g) What do you by analysis of rate? Write down the purpose of rate of analysis.

Answer any three. [3 × 10 = 30]

3. Write down short note on roles of the following:

- (i) Divisional accountant
- (ii) Sub-divisional officer

4. Write briefly on different types of estimates.

5. Write down various important items of building with general specifications in sequence while doing estimate of a complete building.

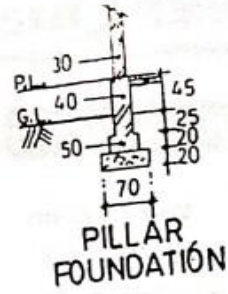
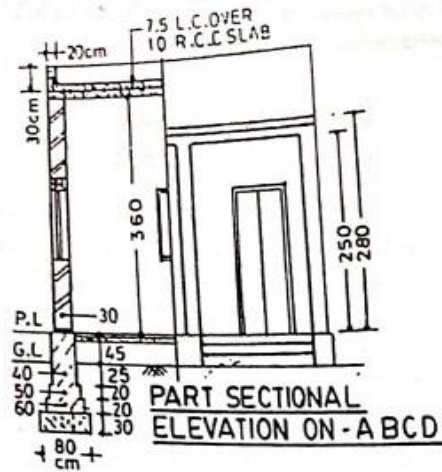
6. Prepare the quantity estimate for the following items from the given plan and

section of Fig-1

- (a) Earthwork in excavation in foundation
- (b) D.P.C of 2.5 cm thick

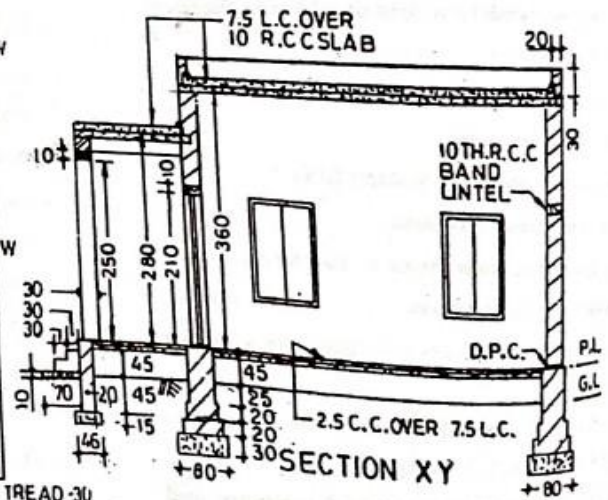
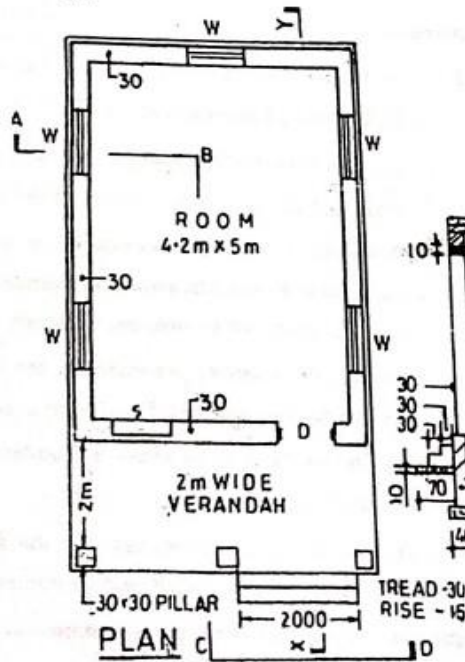
7. Prepare the quantity estimate for the following items from the given plan and section of Fig-1

- (a) First class brick work in foundation and Plinth in cement mortar (1:6)
- (b) RCC work and M.S.reinforcement



**SCHEDULE**

DOOR D = 110x210  
 WINDOW W = 90x190  
 SHELF S = 90x150



DIMENSIONS ARE IN CMS