

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BArch- SEMESTER- 6 EXAMINATION – SUMMER 2016**

**Subject Code:1065005****Date: 13/05/2016****Subject Name: ESTIMATING & COSTING****Time: 10.30AM – 12.30PM****Total Marks: 50****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define rate analysis and write purpose of rate analysis. **05**  
(b) Explain factors affecting rate analysis. **05**
- Q.2** (a) Find the rate of Plain cement concrete (1:2:4) per cu.m. by rate analysis. **05**  
Assume suitable rates of material and labour.  
(b) Write detailed specifications of following items (ANY TWO) **05**
- 1) Earthwork in excavation
  - 2) First class brick work in cement mortar 1:4 in super structure
  - 3) Plastering in walls
  - 4) Reinforced cement concrete (1:1.5:3)
- OR**
- (b) Give classification of specification and explain. **05**
- Q.3** (a) Work out the quantity of items listed below of chaukidar quarter shown in fig **10**  
(a).  
1) Earth work  
2) C.C. for foundation  
3) II<sup>nd</sup> class brick masonry in CM (1:6) for foundation and plinth  
4) Wood work for doors, windows and ventilators  
(b) Prepare an estimate of a RCC beam as shown in fig (b). (bar bending schedule **10**  
is not required)
- Q.4** (a) Explain methods for building estimates and explain any one in detail. **05**  
(b) Write modes of measurement as per IS:1200 **05**
- OR**
- (b) What is the significance of market survey in civil engineering? How the rate of **05**  
an item is derived by method of rate analysis?

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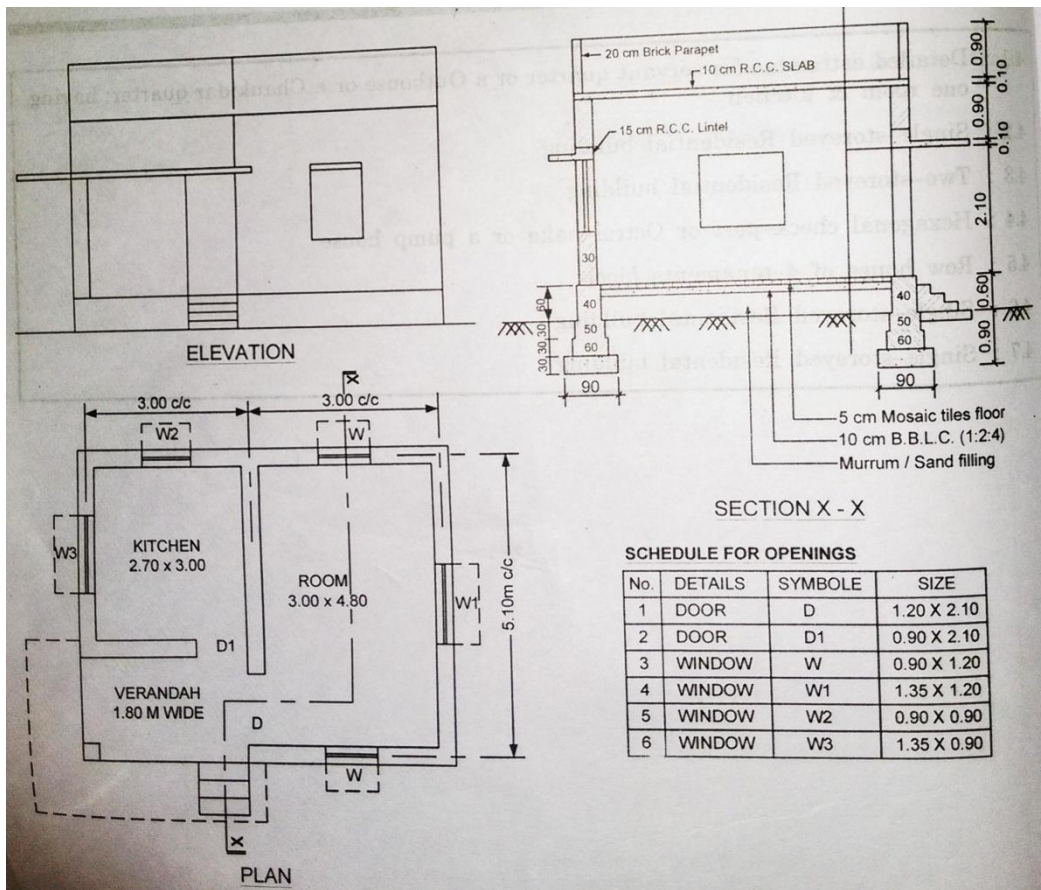


FIG (a)

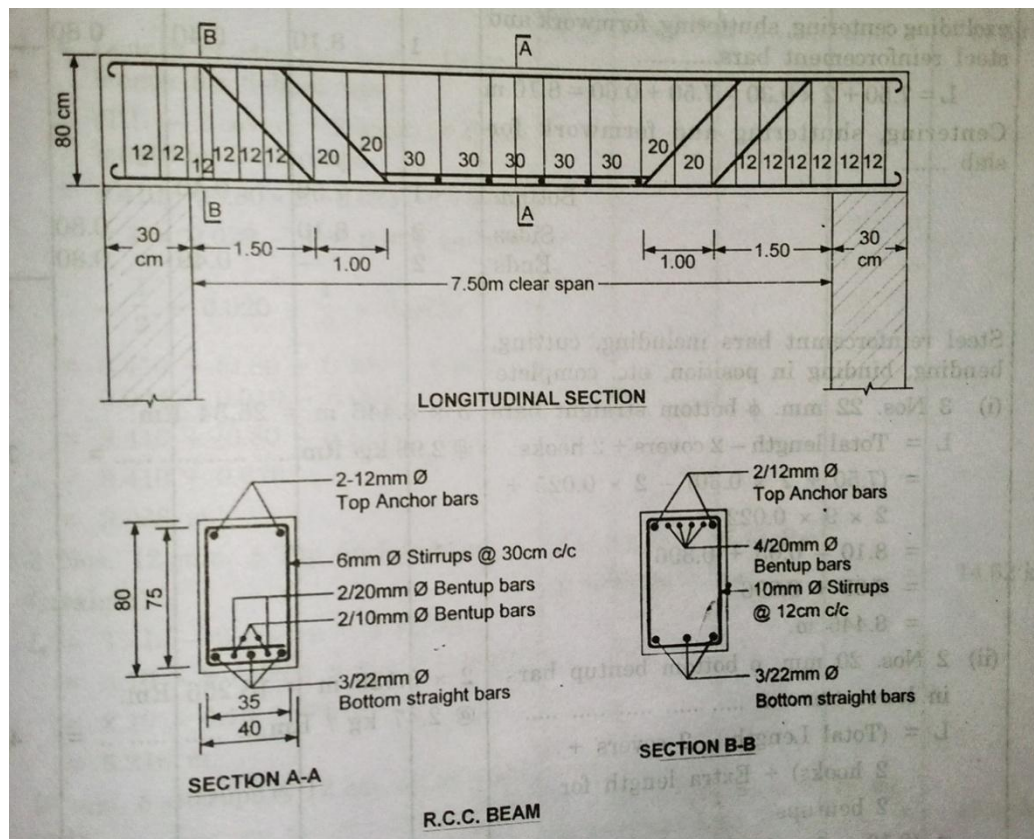


FIG (b)