Seat No.: _____ Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY

**BARCH – SEMESTER VI– • EXAMINATION – SUMMER 2015**

**Subject code: 1065005 Date: 12/05/2015**

**Subject Name: Estimating & Costing**

**Time: 10.30am-12.30pm Total Marks: 50**

## Instructions:

1. **Question number one and two are compulsory.**
2. **Attempt any three questions from remaining five questions.**
3. **Make suitable assumptions wherever necessary.**
4. **Figures to the right indicate full marks.**
5. **Each question carry equal marks (10 marks)**

| | | | |
|---|---|---|---|
| **Q.1** | (a) | Prepare detail Measurement sheet for the following items of work for residential plan as given in fig. (a), all wall thickness (exterior & interior) are 30cm,<br>i) Earthwork in Excavation<br>ii) Brick-work up to Plinth,<br>iii) Doors & Windows<br>iv) White washing<br>Also write brief specification for each item. | **10** |
| **Q.2** | (a) | Prepare detail measurement sheet for RCC slab as given in fig. (b). | **10** |
| **Q.3** | (a) | Define Specification. Write its importance. Explain in detail types of specifications. | **05** |
| | (b) | Write down detail specification of first class brick work in cement mortar (1:6) for superstructure. | **05** |
| **Q.4** | (a) | Define the following – i) Lead, ii) Lift, iii) Royalty charges, iv) Open Specification, v) Analysis of rates. | **10** |
| **Q.5** | (a) | Write down in detail purpose of rate analysis and Factors affecting rate analysis. | **05** |
| | (b) | Write short note on – i) Contingencies, ii) Work-charged Establishment. | **05** |
| **Q. 6** | (a) | Perform Rate Analysis for PCC (1:2:4) in foundation with ballast 40mm for 10 cubic meter. | **10** |
| **Q. 7** | (a) | Perform rate analysis for $2^{nd}$ class brickwork in foundation and plinth with 20cmx10cmx10cm bricks with cement mortar (1:6) for one cubic meter. | **10** |

P.T.O.

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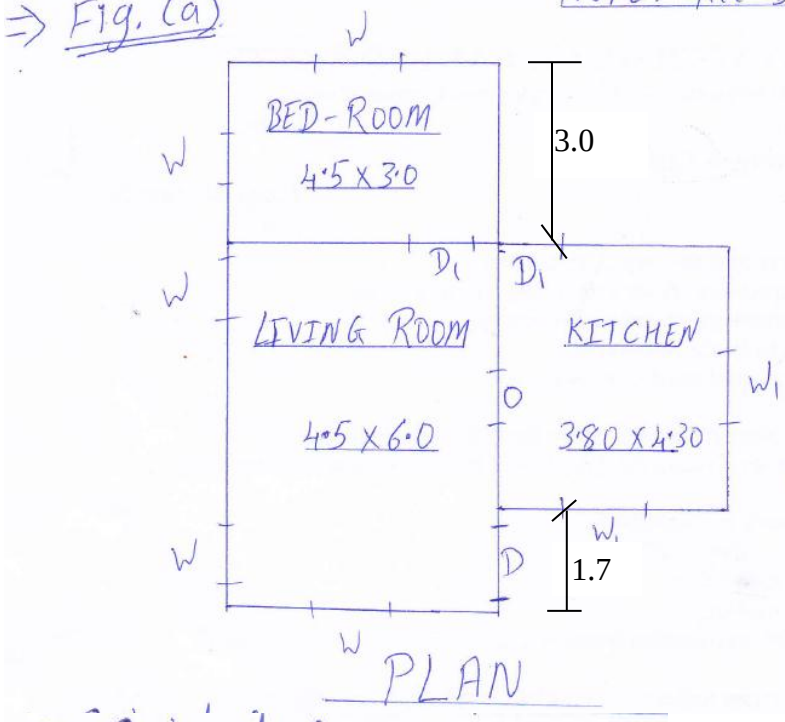
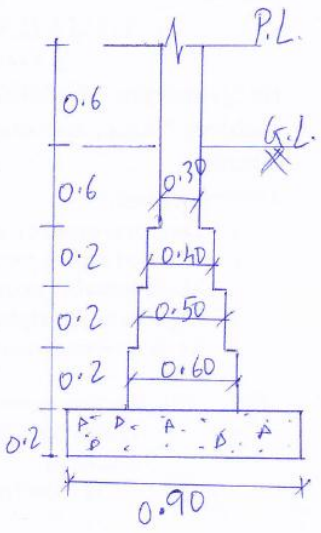
NOTE:- All Dimensions Are In Mtr.

⇒ Fig. (a)




PLAN




FOUNDATION SECTION

⇒ Schedule:-

→ DOOR - D - 1·20 X 2·10

D1 - 1·0 X 2·10

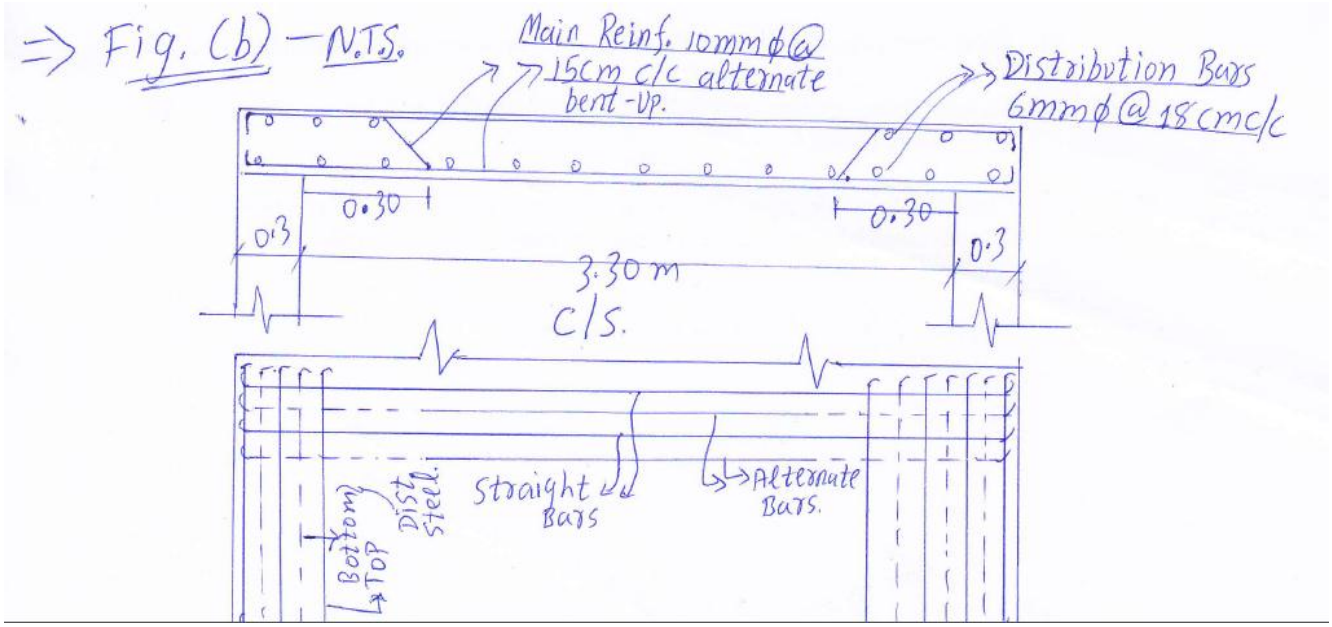
OPENING - O - 1·20 X 2·10

WINDOW - W = 1·2 X 1·40

W1 = 1·50 X 1·20

FLOOR TO FLOOR Ht. = 3·0 m.

⇒ Fig. (b) — N.T.S.


Main Reinf. 10mm ϕ @ 15cm c/c alternate bent-up.
Distribution Bars 6mm ϕ @ 18 cm c/c
0.30
0.30
0.3
0.3
3.30 m
c/s.
Bottom
TOP
Dist. steel.
Straight Bars
Alternate Bars.