# GUJARAT TECHNOLOGICAL UNIVERSITY
**BE - SEMESTER– VII (New) EXAMINATION – WINTER 2019**

**Subject Code: 2170610**                            **Date: 03/12/2019**

**Subject Name: Professional Practices & Valuation**

**Time: 10:30 AM TO 01:00 PM**                  **Total Marks: 70**

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

| | | | |
|---|---|---|---|
| **Q.1** | **(a)** | Write formulas for the following: (1) Area of Segment of Circle (2) Volume of frustum of cone (3) Volume of sphere | **03** |
| | **(b)** | Define following terms – Estimate, Contingencies, Spot Item, Prime Cost | **04** |
| | **(c)** | For the following given figure **a**, calculate the quantities of following items by Centre line method<br>   a) Earthwork in Excavation in foundation<br>   b) Cement Concrete bed in Foundation<br>   c) Brick masonry work in foundation up to plinth in cm 1:6. | **07** |
| **Q.2** | **(a)** | Discuss accuracy criteria for concrete | **03** |
| | **(b)** | Compare revised estimate and supplementary estimate. | **04** |
| | **(c)** | What is Contract? List out Various types of Special contract and explain Turnkey Contract in detail. | **07** |
| | | **OR** | |
| | **(c)** | Enlist different types of tenders & explain anyone them | **07** |
| **Q.3** | **(a)** | Provide the Prevailing market rate of the following materials in your city:<br>10 mm diameter MS Bar, Gully Trap, Kota Stone. | **03** |
| | **(b)** | Define rate analysis. How we can fix rate per unit of item in rate analysis? | **04** |
| | **(c)** | Calculate the following:<br>1. No. of bricks required for 5 cu. m. brickwork.<br>2. Materials required for M20 Grade of Concrete | **07** |
| | | **OR** | |
| **Q.3** | **(a)** | Write short note on Schedule of rates (S.O.R) & Task of Work | **03** |
| | **(b)** | Differentiate between Estimation & Valuation | **04** |
| | **(c)** | Write short note on :<br>1. Scrutiny of tender 2. Classification of tender | **07** |
| **Q.4** | **(a)** | A person requires Rs. 20000 after 5 years for the repair of his house. What amount he needs to invest at 7% to get required amount after said years? | **03** |
| | **(b)** | What should be the amount of loan instalment if loan amount is Rs. 12,00,000 to be paid at annual interest rate of 13.78 % in 363 months | **04** |
| | **(c)** | Calculate rent of newly constructed building from given data. 1) Cost of Land=7,00,000 , 2) Cost of Construction = 5,50,000 , 3) Total outgoings including sinking fund = 15.8 % of GI , 4) Net return @ 10% on construction and 5% on Land | **07** |
| | | **OR** | |

**Q.4**  **(a)**  What do you mean by value? State the purposes of Valuation.  **03**

**(b)**  Differentiate between Earnest Money Deposit & Security Deposit.  **04**

**(c)**  Define the following terms: 1. Scrap value 2. Estimating 3. Cost 4. Salvage value 5. Book Value 6. Free hold property 7. Lease hold property  **07**

**Q.5**  **(a)**  Explain following terms – Liquidated Damages, Unbalanced Tender, Arbitration  **03**

**(b)**  Discuss various reasons for rejection of the lowest tender.  **04**

**(c)**  Discuss mode of payment to the contractor. How the first and final bill, running or interim bills are paid to contractor?  **07**

**OR**

**Q.5**  **(a)**  Write difference between: 'Depreciation and Obsolescence.'  **03**

**(b)**  Define specification. What are the purpose of writing  **04**

**(c)**  Explain in brief various principles of writing good specifications  **07**
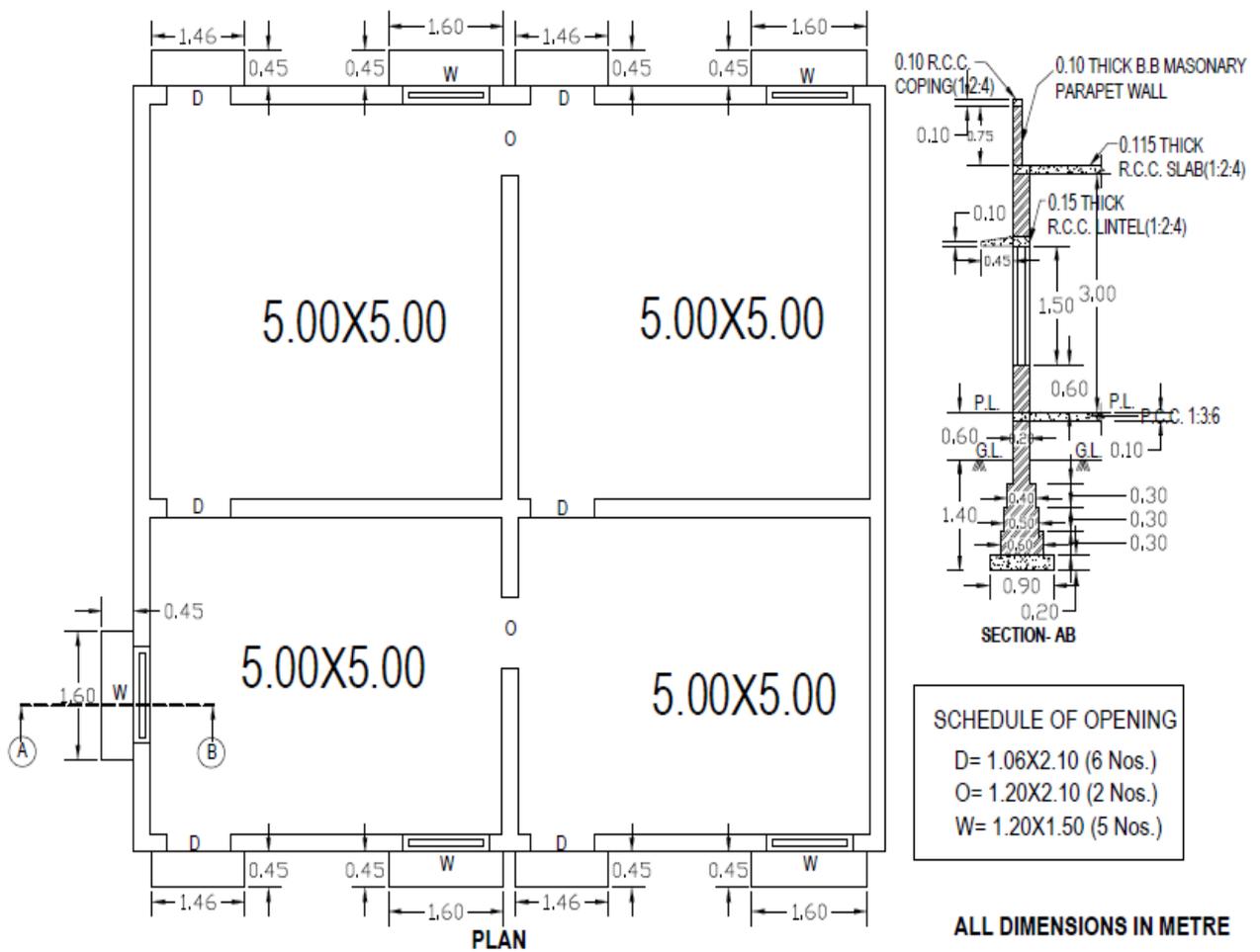


**Figure: a**

In figure:  In section-AB consider data for section starting from pcc (from bottom) pcc : 0.9 m, of step 1: 0.6 m, of step 2: 0.5 m, of step 3: 0.4 m, wall : 0.2 m

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