PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B. Tech. Summer 2018 - 19 Examination

Semester: 7   Date: 08/05/2019
Subject Code: 03104401   Time: 10:30 am to 01:00 pm
Subject Name: Estimation, Costing and Valuation   Total Marks: 60

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions -   (All are compulsory) (Each of one mark)   **(15)**
    1. What are the nominal mix proportions for M25 concrete?
    2. What is the thickness of second coat in case of 20mm thick sand faced cement plaster?
    3. For how many days, cement concrete work of nominal mix proportions 1:1:2 shall be kept well watered?
    4. What is task work?
    5. Give definition of rate analysis.
    6. For first class bricks, water absorption after soaking in water for one hour, should not be greater than _____ of its weight.
    (a) One-fifth (b) One- fourth (c) One-third (d) none of these
    7. The detailed specifications written fairly will help the contractor in quoting correct rates.- The sentence is
    (a) Correct (b) False (c) Can't say
    8. Which of the following factor/s affect the rate analysis?
    (a) Material cost (b) Labor cost (c) Equipment/Machinery cost (e) All of these
    9. The dimensions of standard bricks are _____.
    (a) 19 x 9 x 9 cm (2) 19 x 9 x 9 inch (3) 19 x 9 x 9 mm (4) None of these
    10. For 10 m^3 RCC work in beams and columns in 1:2:4, the number of mazdoor required are_____.
    (a) 18 (b) 28 (c) 38 (d) 48
    11. Which are the main factors to be considered while preparing detailed estimate?
    12. Which is the code for recommendation of labour output constants for building work?
    13. Plastering work is measured in _____
    14. The statement of rates, published by any government body for finalizing rates, for that particular year is called as _____.
    15. The capacity of doing work by an artisan or skilled labour, in the form of quantity of work per day is called as the _____work or out turn work of the labour.

Q.2 Answer the following questions. (Attempt any three)   **(15)**
    A) What is the area & volume of the cylinder with a radius of 2m and a height of 6m?
    B) Discuss in brief objectives/aims of writing specifications.
    C) Discuss centre line method of estimation with simple example.
    D) Describe in brief specifications for RCC work with nominal mix proportions 1:1.5:3.

Q.3 A) Determine the following quantities of items of works by considering drawings given in Figure   **(07)**
1(A) and 1(B) of a residential building–
    (1) Earthwork in excavation for foundation
    (2) P.C.C work (1:4:8) for foundation
    (3) Brick Masonry work up to plinth level in cement mortar (1:6) excluding steps in front and back.
    B) Enumerate types of estimates and discuss any two types in detail.   **(08)**
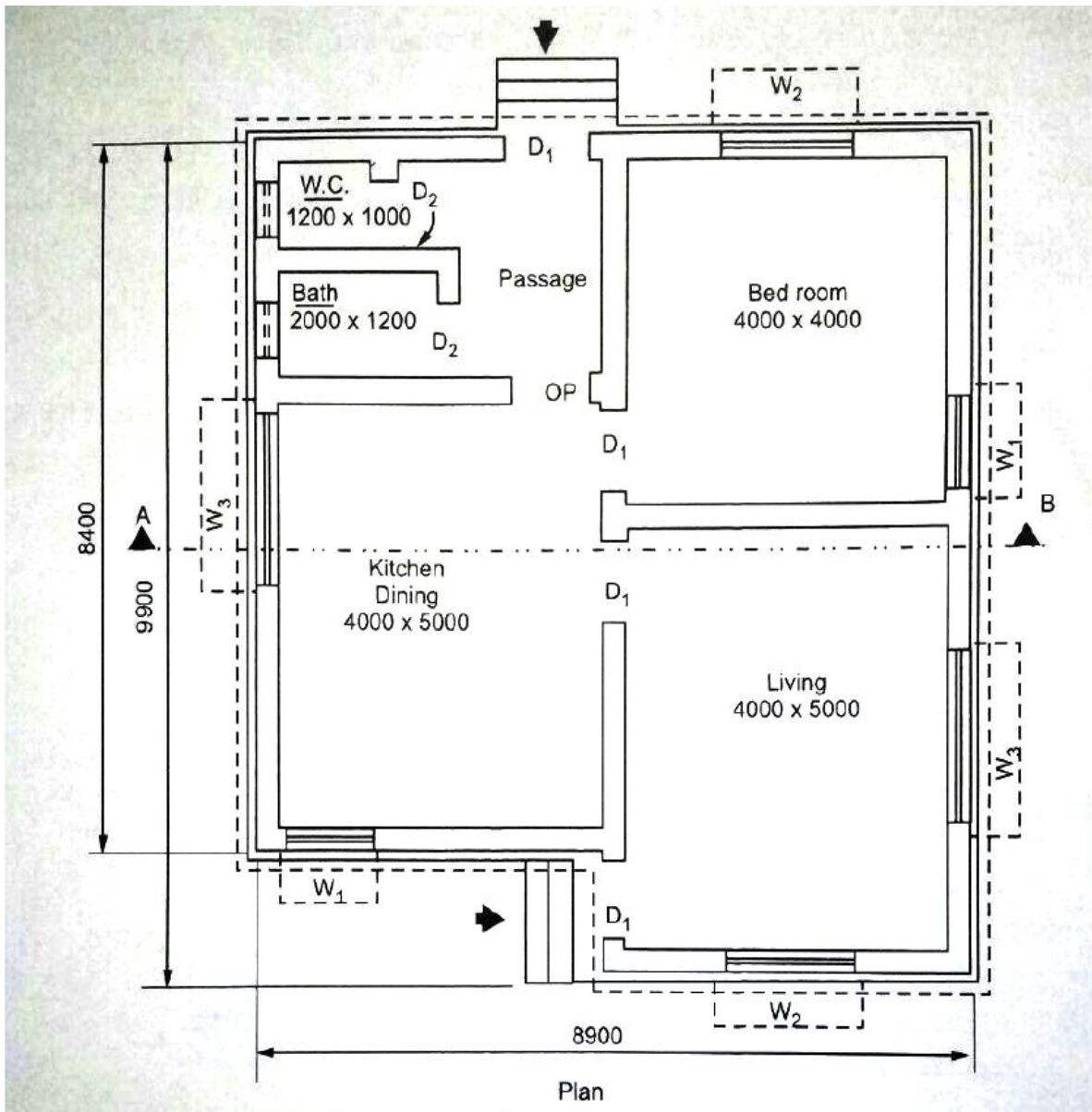<div align="center">OR</div>
    B) Calculate the rate analysis with present market rates of materials for 1:4:8 cement concrete in foundation.   **(08)**

Q.4 A) Find out the quantity of materials required for 1 m^3, 1:1.5:3 finished concrete.   **(07)**
<div align="center">OR</div>
    A) An old shop has been purchased by a person at a cost of Rs.22,000/- excluding the cost of land.   **(07)**
Calculate the amount of sinking fund at 5% interest assuming the future life of the building as 15 years and the scrap value of the building as 10% of the cost of purchase.
    B) Describe in detail factors affecting rate analysis.   **(08)**
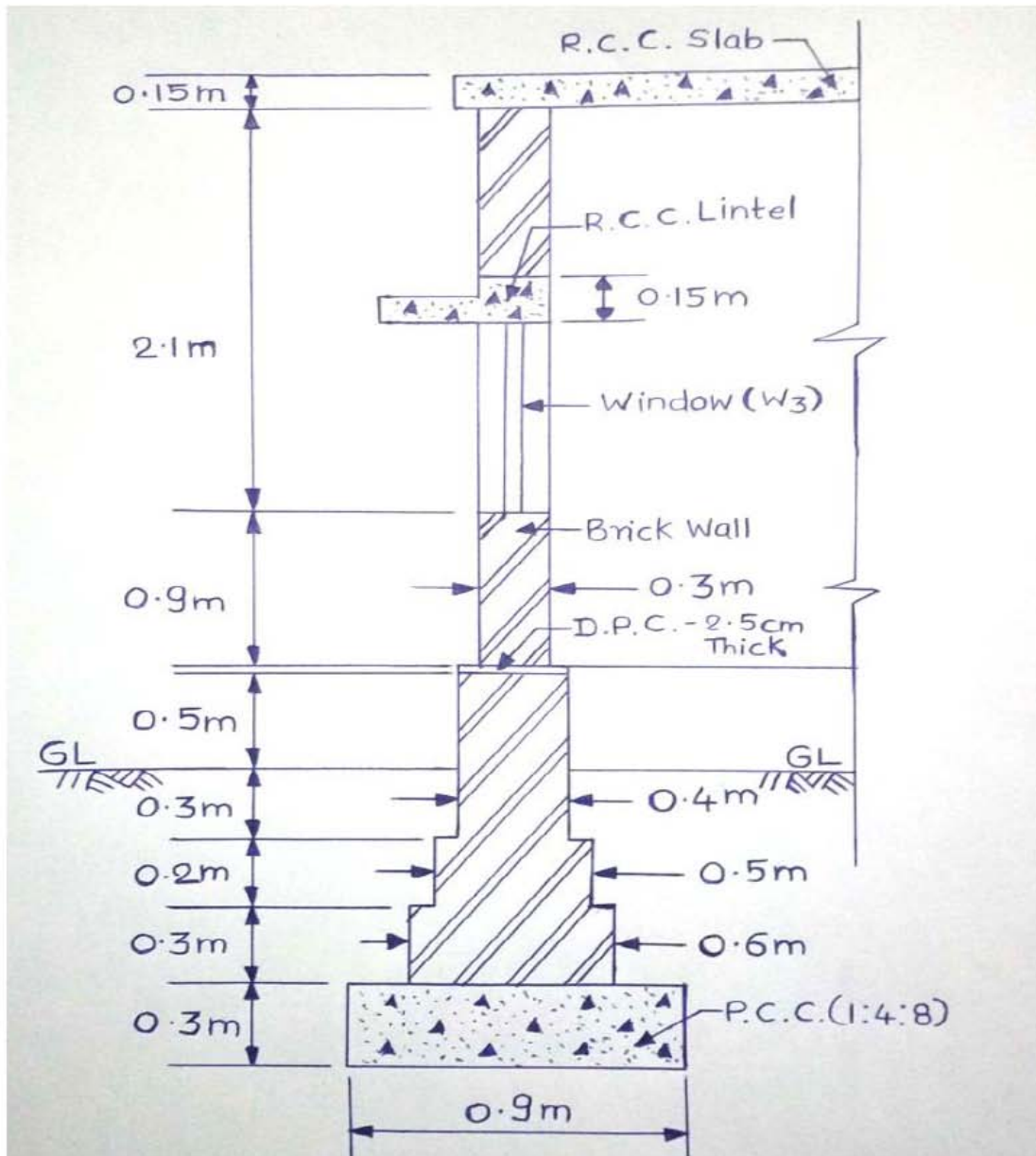
Figure 1 (A) Plan of a residential building

Figure 1 (B) Section of wall along section line AB