PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
MID TERM EXAMINATION - APR 2023

Semester : Semester VI - 2020   **Date :** 12-APR-2023
Course Code : CIV3001   **Time :** 9.30AM - 11.00AM
Course Name : Sem VI - CIV3001 - Estimation Costing and Valuation   **Max Marks :** 60
Program : B.Tech. Civil Engineering   **Weightage :** 30%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS   (2 X 5 = 10M)

1. State the units of measurement for the items listed below.
    a. Plastering
    b. Painting
    c. Nosing
    d. Stone cladding
    e. Damp proof course

                                                          (CO1) [Knowledge]

2. There are various terminogies which are used in estimation. Contingency and work charged establishment are amongst them. Explain them in detail.

                                                          (CO1) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS   (3 X 10 = 30M)

3. Name and explain the contract where the contractor offers to do the whole work for a total stipulated sum of money as shown in drawings and described by specification. Also state the advantages and disadvantages.

                                                          (CO1) [Comprehension]

4. Detailed estimate consists of particulars for the quantities, rates and cost of all the items involved for satisfactory completion of project. What are the factors to be considered while preparing the detailed estimate?.

(CO1) [Comprehension]

5. Which type of estimate is more suitable when it is to be prepared in short duration of time for a building at Rajanukunte having a carpet area of 20000 sq. ft, given the following data. It may be assumed that 35% of built-up area will be taken up by corridors, verandahs, lavatories, staircases, etc. and 11% of built up area will be occupied by wall and other supports.
(i) Plinth area rate - Rs. 1000.00 per sq. m
(ii) Extra for special Architectural treatment – 1% of the building cost (BC)
(iii) Extra for water supply and sanitary installation – 5% of the building cost
(iv) Extra for electrical installations – 12% of Building cost
(v) Extra for services – 5% of the building cost
(vi) Contingencies – 3%
(vii) Supervision charges - 8%

(CO1) [Comprehension]

PART C

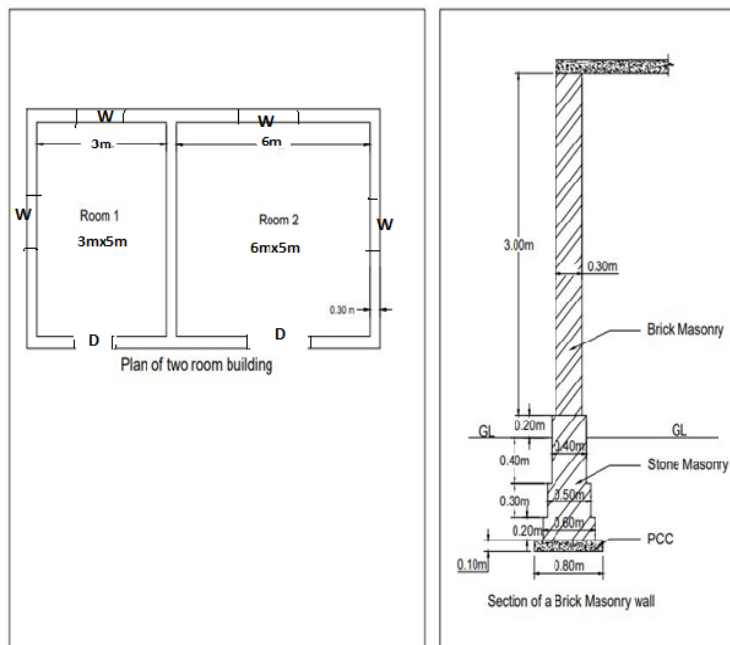### ANSWER THE FOLLOWING QUESTION   (1 X 20 = 20M)

6. The plan and sectional elevation of a building at Rajanukunte is shown below. For this building, estimate the quantities for the following items.
a) Earthwork in excavation in foundation.
b) Cement concrete in foundation.
c) 1st class brick work in 1:6 cement mortar for foundation and plinth.
d) 2.5 cm thick cc DPC.
e) 1st class brickwork for superstructure
Note 1: D=1.2m x 21.1m and W= 1m x 1.5 m
Note 2: All the lintel beams are 15cm thick and assume 15cm bearing
Note 3: All the walls are 30 cm thick

Plan of two room building

Section of a Brick Masonry wall

(CO2) [Application]