

A

Reg. No. :

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Question Paper Code: 97102

B.E./B.Tech. DEGREE EXAMINATION, NOV 2023

Seventh Semester

Civil Engineering

19UCE702 – ESTIMATING & COSTING

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- When the Estimated cost is exceed by more than 5%, which estimate will be prepared? CO1- U
(a) Supplementary Estimate (b) Revised Estimate
(c) Sub Estimate (d) Approximate Estimate
- What is the unit of measurement for Cement? CO1- U
(a) kg (b) Bag (c) Tonne (d) All the above
- The description of works is called CO1- U
(a) Specification (b) Report (c) Estimate (d) Data
- Schedule of rates is prepared by CO2- U
(a) CPWD (b) PWD (c) Both a and b (d) None of the above
- Who can act as an Arbitrator? CO2- U
(a) Assistant Engineer (b) Superintending Engineer
(c) Executive Engineer (d) None of the above
- What is the quantity of cement required for CM 1:5 – 1 m³? CO2- U
(a) 312 kg (b) 288 kg (c) 1440 kg (d) 480 kg
- In long and short wall method of estimation, the length of long wall is the centre to centre distance between the walls and CO3- U
(a) Breadth of the wall (b) Half breadth of wall on each side
(c) One fourth breadth of wall on each side (d) None of the above

8. The standard thickness of the wall provided in Residential Building is CO3 - U
 (a) 100 mm (b) 300 mm (c) 200 mm (d) 230 mm
9. The measurement is made in square metre in case of CO3 - U
 (a) Cement concrete in foundation (b) Hollow concrete block wall
 (c) Damp proof course (d) None of these
10. The order of booking dimensions is CO3 - U
 (a) B*L*H (b) L*B*H (c) H*B*L (d) None of these

PART – B (10 x 3 = 30Marks)

11. Give the units of measurements for following items of work. CO1 -U
 (i) Damp proof course
 (ii) Earth filling in foundation
 (iii) Formwork
12. List out the types of specification CO1 -U
13. Define approximate estimate CO1-U
14. Write the essentials requirements of contract. CO2 -U
15. What are the important legal implications of contract? CO2 -U
16. Define: Billing CO2-U
17. Define: Taking off quantities CO3-U
18. Mention the methods of determining the quantities of various items of work CO3-U
19. Explain Centre line method. CO3-U
20. Define: Abstracting CO3-U

PART – C (3 x 20= 60 Marks)

21. (a) Elaborate the general specification for first class residential CO1- U (20)
 buildings.
- Or
- (b) Discuss the different types of estimates. CO1- U (20)
22. (a) Analyze the rate for the following works. (i) Foundation cement CO2- App (20)
 concrete 1:8:16 - 1 m³. (ii) RCC roof slab 1:2:4 of 10 cm thick-
 1 m³
- Or
- (b) Explain in detail about different types of contract systems. CO2- App (20)

23. (a) Estimate the following items of works from the given three roomed building drawing. (Fig 1 & Fig 2) CO3- App (20)
- a. Earthwork excavation
 - b. R.R. masonry in footing and basement
 - c. Brickwork in superstructure wall
 - d. Sand filling in basement.

Take the dimensions of

D1 = 1.2 x 2.0 m

D2 = 1.0 x 2.0 m

W1 = 1.5 x 1.0 m

W2 = 1.0 x 1.0 m.

R.R. masonry is provided for footing and basement. Individual lintels are provided.

Take sunshade projection = 45 cm.

Thickness of RCC roof slab = 120 mm

Thickness of RCC lintel = 200 mm.

Average thickness of sunshade = 75 mm

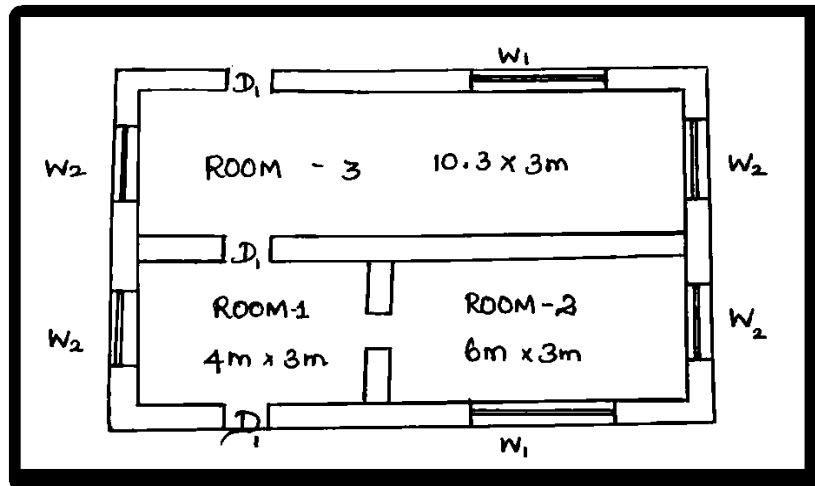


Fig 1

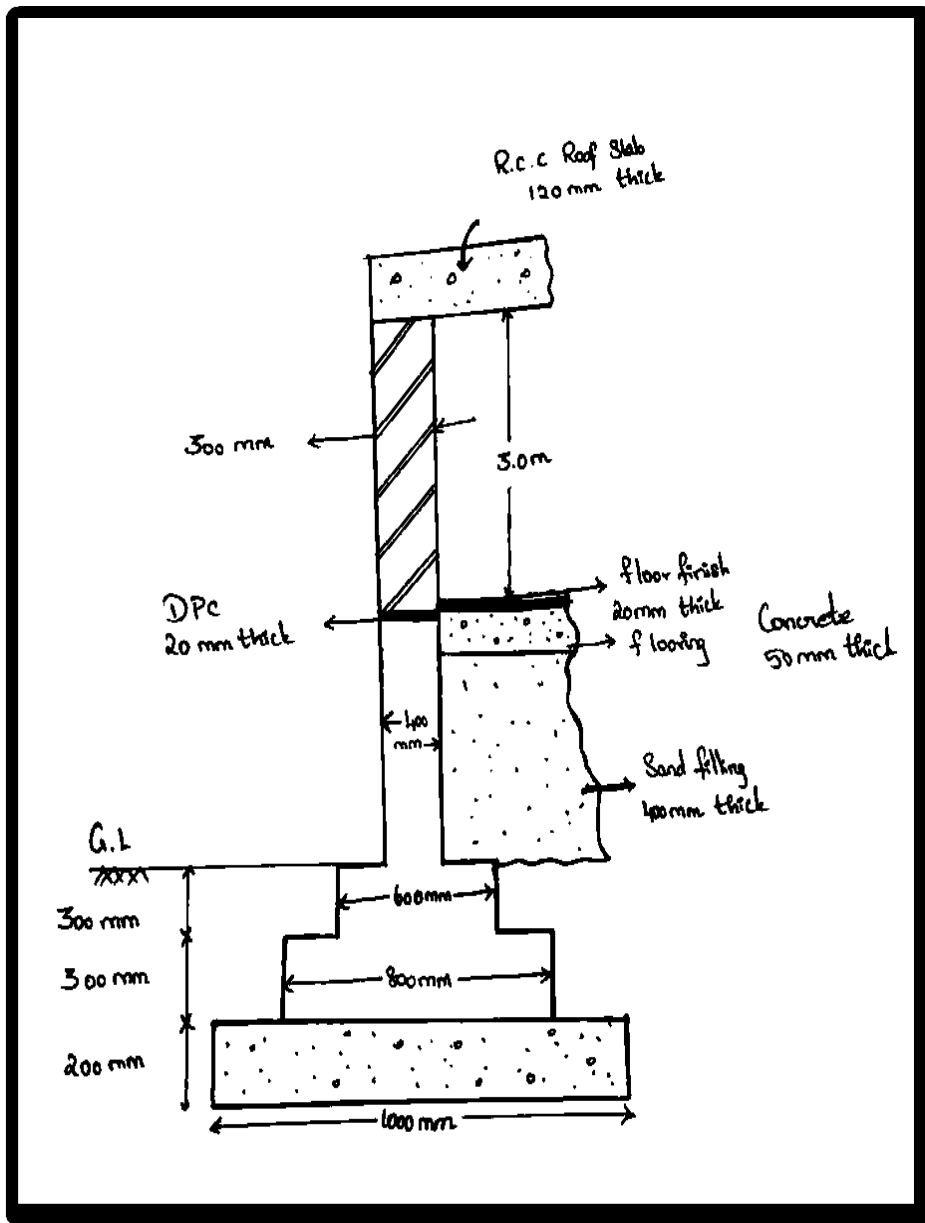


Fig 2

Or

- (b) Estimate the following items of works from the given two roomed building drawing (Fig 3, Fig 4) by 'Centre line method'. CO3- App (20)
- Earthwork excavation for foundation
 - PCC work in foundation
 - Brickwork in footing
 - Brickwork in basement
 - Brickwork in superstructure wall

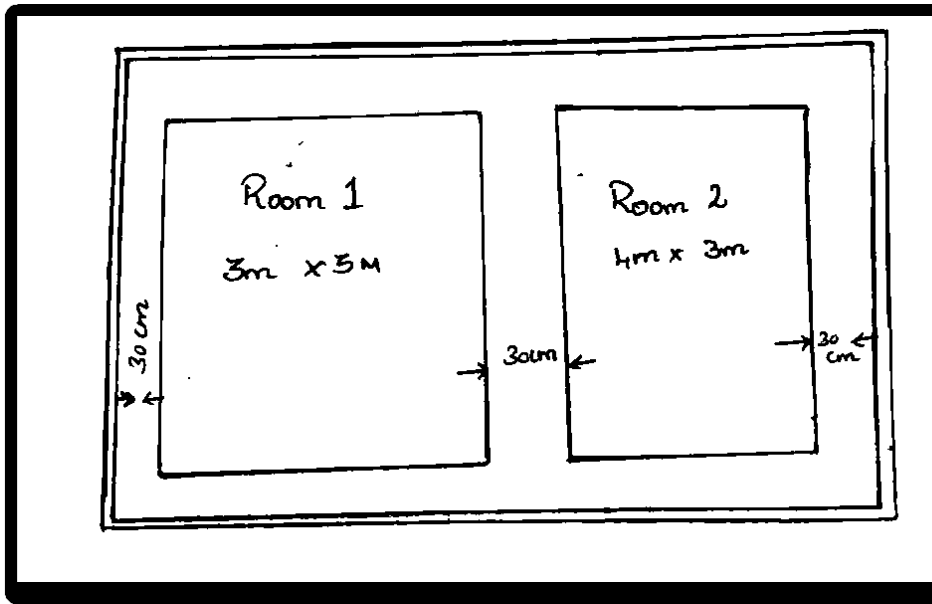


Fig 3

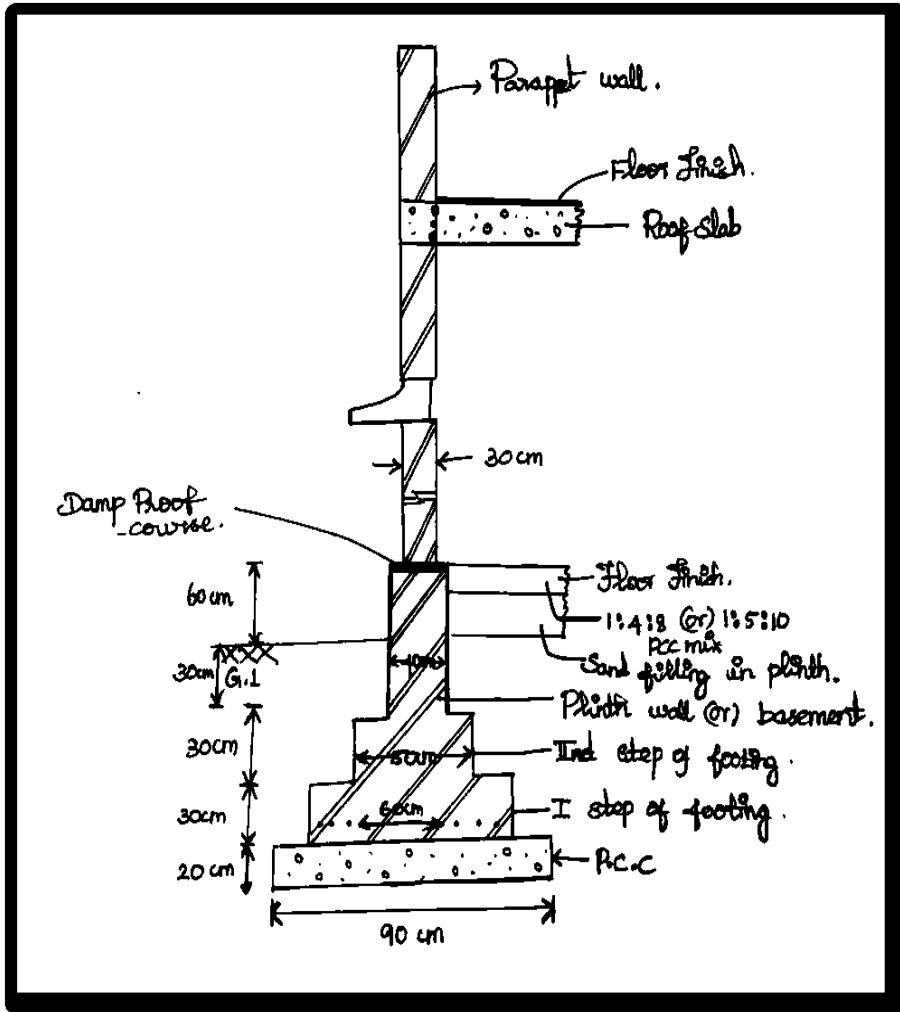


Fig 4

