

PART C — (1 × 15 = 15 marks)

16. (a) Estimate the quantities of the following items for the building giving in fig 1.
- Earthwork excavation in foundation
 - PCC in foundation
 - Stone masonry in footings and plinth
 - Material in damp proof course
 - Material in steps.

Or

- (b) Estimate the quantities of the following items of works for the buildings as shown in fig.1.
- Material in floor
 - Brick work in superstructure
 - Material in roof and weathering course
 - Plastering interior and exterior
 - Material in parapet wall.

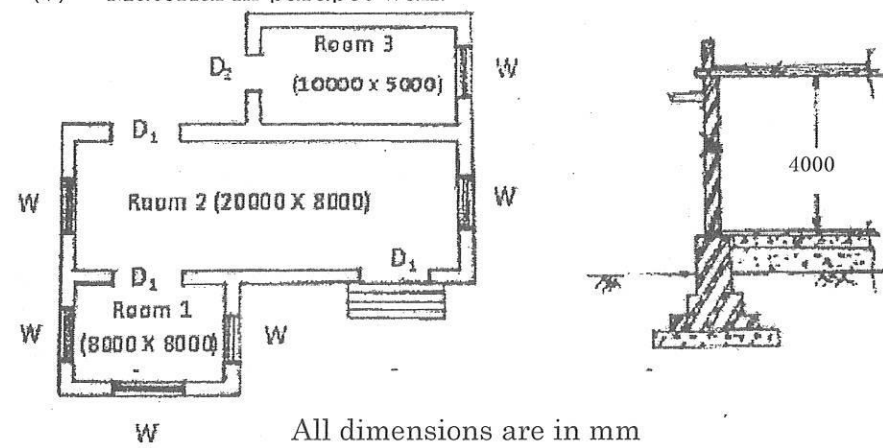


Fig.1

Dimensions of Components:

- PCC in foundation: 1200 mm × 200 mm
- Stone work in first footing: 800 mm × 200 mm
- Stone work in second footing: 600 mm × 250 mm
- Plinth below ground level (Stone masonry): 400 mm × 300 mm
- Plinth above ground level (Stone masonry): 400 mm × 600 mm
- Super structure wall (brick work) at 230 mm thickness with height 4000 mm
- Parapet wall at 150 mm thickness and height 1000 mm
- Thickness of roof slab 120 mm
- DPC at 25 mm thickness
- Thickness of sand filling in floor: 500 mm
- Thickness of floor base: 75 mm

Reg. No. : **Question Paper Code : 90336**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022.

Seventh Semester

Civil Engineering

CE 8701 – ESTIMATION, COSTING AND VALUATION ENGINEERING

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Classify revised estimate from supplementary estimate.
2. Tell the factors to be considered in designing the septic tank.
3. Define the term Lump-sum
4. Write the importance of rate analysis.
5. Write few words about TTT Act
6. Tell the reason for rejection of all tender.
7. List down various types of Contracts.
8. Define the term Arbitration.
9. Write the necessity of valuation.
10. List down various methods of valuation.

PART B — (5 × 13 = 65 marks)

11. (a) Briefly explain the different types of estimates and discuss at which situation each type is preferred by giving appropriate justification.

Or

- (b) Describe a detailed estimate with specifications, quantity measurement for RCC retaining wall constructed along a river bed.

12. (a) Prepare a detailed rate analysis for the following items: (Assume any other relevant data)

(i) 2.5 cm Cement concrete floor of 1:2:4 mix — Rate for 10 m²

Labour requirement for 100 sq.m:

Head mason – ¼ no. ; Mason – 10 nos; Mazdoor category I – 5 nos;

Mazdoor category II – 7 nos, Take side forms, sundries,

T & P – Lump sum @ Rs. 600/-

(ii) Reinforced cement concrete 1:2:4 mix (Including steel and formwork) for columns— Rate / 10 m³

Labour requirement for 100 cu.m:

Head mason – ½ no; Mason – 4 nos; Mazdoor category I – 20 nos;

Mazdoor category II – 34 nos;

Sundries, T & P – Lump sum @ Rs.500/-;

Blacksmith for Bending & Cranking of steel (II class) – 14 nos.

Carpenter (Class II) – 12 nos.

Steel plates (for Centering & shuttering) – (Lumpsum) @ Rs.5,000/-

Nails & T & P (Lumpsum) @ Rs. 450/-

Cost of materials & Labour:

Cement – Rs. 450/bag

Coarse sand – Rs. 1120/m³

Broken stones 20mm gauge – Rs.1050/m³

MS bars.& binding wires - Rs.50/kg

Head mason – Rs.600/day; Mason – Rs. 550/day

Mazdoor I – Rs.400/day; Mazdoor category II – Rs. 300 /day

Blacksmith – Rs. 450/day, Carpenter (Class II) – Rs. 450/day

Or

(b) Prepare a detailed rate analysis for the following items. (Assume any other relevant data)

(i) Plastering with cement mortar 1:4, 12 mm thick –Rate for 10 m²

Labour requirement for 100 sq.m:

Head mason – 1/3 no. ; Mason – 15 nos.; Mazdoor category II – 20 nos.; Mazdoor category I – 2 nos; Scaffolding, sundries, T & P –

Lump sum @ Rs. 600/-

(ii) Reinforced cement concrete 1: 1 ½: 3 (including steel and formwork) for roof slab –Rate/10m³

Labour requirement for 100 cu.m:

Head mason – ½ no; Mason – 4 nos.; Mazdoor I – 15 nos;

Mazdoor II–32 nos; Sundries, T & P(Lump sum) @ Rs.500/-;

Blacksmith for bending & Cranking of steel (II class) –14 nos.

Carpenter (Class II) .12 nos.

Steel plates (for Centering & shuttering) .(Lumpsum) @ Rs. 5000/-

Nails & T & P (Lumpsum) @ Rs. 450/-

Cost of materials & Labour:

Cement .Rs. 450/bag

Coarse sand –Rs. 1120 /m³

Broken stones 20mm gauge –Rs. 1050/m³

MS bars & binding wire –Rs.50/kg

Head mason .Rs. 600/day; Mason –Rs. 550/day

Mazdoor I –Rs. 400/day; Mazdoor category II – Rs.300/day

Blacksmith –Rs. 450/day

Carpenter (Class II) –Rs.450/day

13. (a) Discuss the detailed specifications for RCC and color washing in building mentioning its salient features.

Or

(b) Prepare a report for estimate a residential building that can be submitted to an engineer.

14. (a) Explain in detail about preparation of contract document with all its features.

Or

(b) Write a note on: Arbitration and Legal requirements in projects.

15. (a) Mr.'X' purchased a Residential Flat of 1250 sq.ft @ a composite rate of Rs.6500/sq.ft. He wants to let out his flat and he expects a rate of return of 3%. What is the rent he can expect?

Or

(b) (i) What is the General procedure of valuation of property involving plot and Building? (7)

(ii) What are the few factors affecting the value of the building in general? (6)

Reg. No. :

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Question Paper Code : 70361

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

Seventh Semester

Civil Engineering

CE 8701 – ESTIMATION, COSTING AND VALUATION ENGINEERING

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Note : Assume suitable data if necessary.

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the factors to be considered while preparing a detailed estimate.
2. Explain Overhead charges.
3. State the importance of rate analysis.
4. Calculate the materials required for brick tile flooring in 1:6 cement mortar.
5. State the principle of report preparation.
6. Explain the term Notice Inviting Tender.
7. Mention the Pre-qualification criteria for selecting a contractor.
8. Mention the purpose of Earnest Money Deposit.
9. List the different methods of depreciation.
10. Demonstrate the meaning of salvage value with example.

PART B — (5 × 13 = 65 marks)

11. (a) Explain the different methods of preparation of approximate estimate.

Or

- (b) Explain different methods for taking out quantities with example.

12. (a) Explain in detail about the standard data for man hours and materials in civil works.

Or

- (b) Explain how to calculate the quantity requirements to prepare rate analysis for brickwork.

13. (a) Discuss the salient features of Tamil Nadu Transparency in Tender Act 2000.

Or

- (b) Write down the detailed specification for Cement concrete in foundation.

14. (a) Explain different types of construction contract in detail.

Or

- (b) Discuss the various methods of dispute resolution.

15. (a) Explain in detail about various methods of Valuation.

Or

- (b) Accommodation room is built at the cost of Rs. 6,00,000/-. The water supply and sanitary and electrical installation expenditure is Rs. 1,50,000/- Calculate the standard rent of the building if the following rate of return are fixed :

- (i) 6% on construction cost
- (ii) 1 ½% towards maintenance of building work,
- (iii) 4 ½ % on installation expenditure.
- (iv) Rs. 120/- as property tax per year.
- (v) 4% on maintenance of Installation.

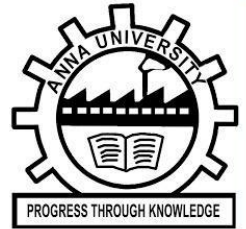
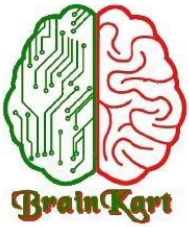
Cost of land is to be neglected.

PART C — (1 × 15 = 15 marks)

16. (a) Explain different types of Estimates in detail.

Or

- (b) Formulate the “Structure of Construction Contract Bidding document” with necessary essential elements.



Civil Engineering

1st Semester ▶

2nd Semester ▶

3rd Semester ▶

4th Semester ▶

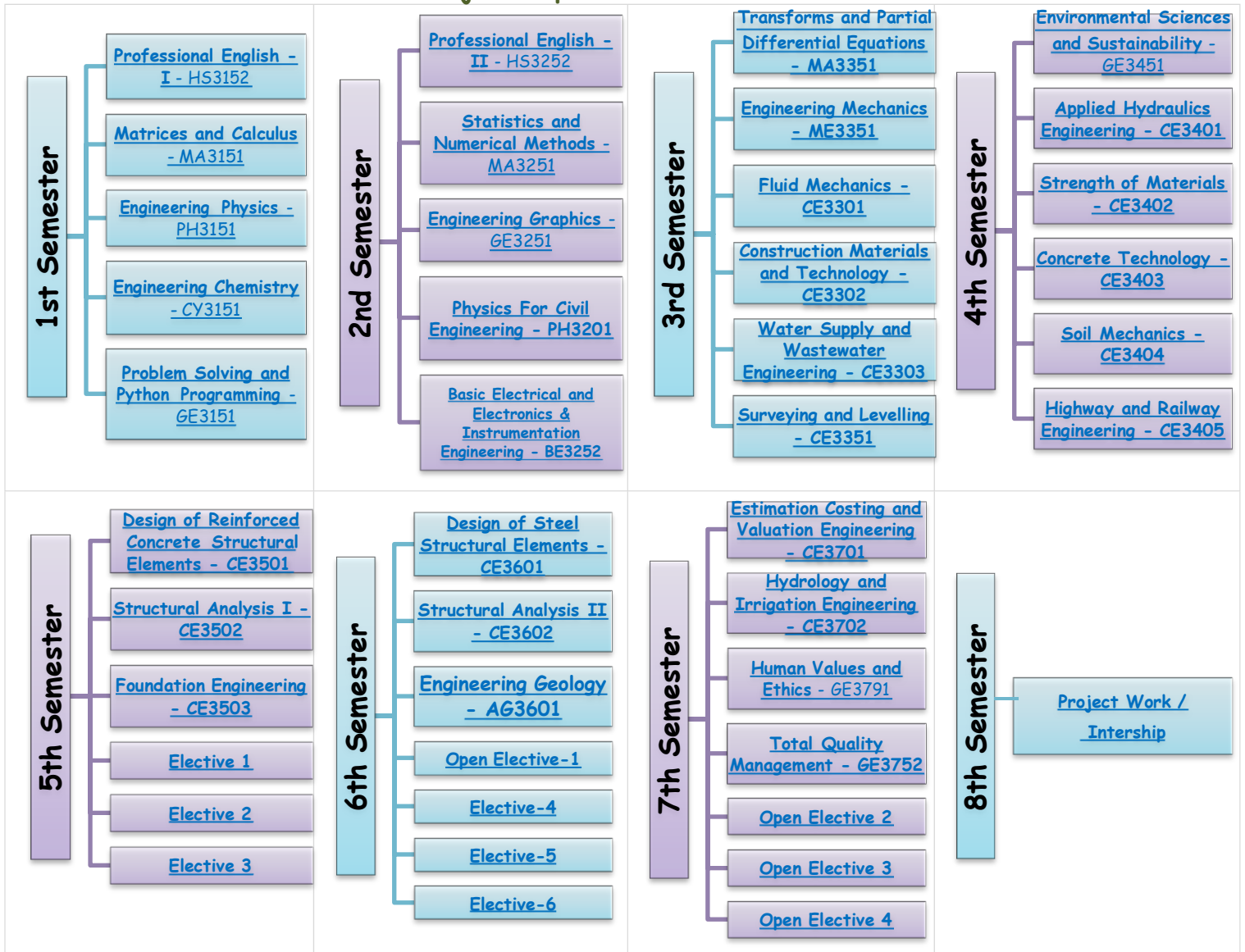
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Housing Planning and Management	Air Pollution Management	Municipal Solid Waste Management
Soil Mechanics	Principles of Management	Prefabricated Structures
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Reg. No. :

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B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

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(Regulations 2017)

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