

B.E. (Civil Engineering) Model Curriculum Semester-VI  
**PCC-CE603 - Engineering Economics & Estimation & Costing**

P. Pages : 2

Time : Four Hours



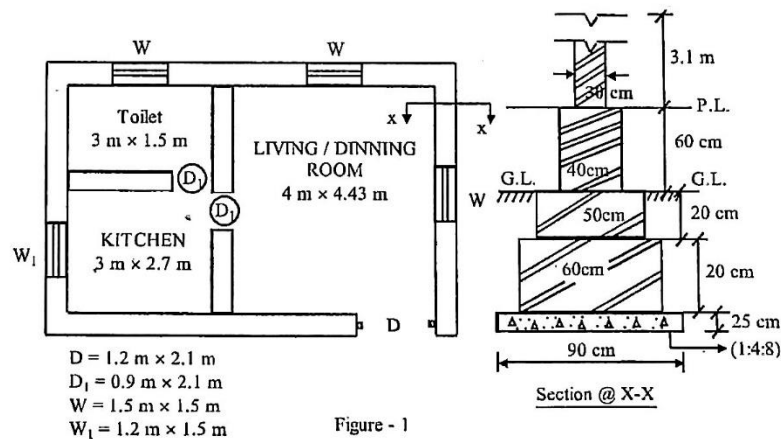
**GUG/W/24/13731**

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.
  4. Retain the construction lines.
  5. Illustrate your answers wherever necessary with the help of neat sketches.

1. Estimate the quantities for the following items of work for the given building plan and typical wall section in figure-1 **16**

- i) Earthwork in excavation in foundation trenches.
- ii) IInd class brick masonry in CM 1:5 in super structure excluding steps.
- iii) 12 mm thick internal cement plaster in CM 1:5 for ceiling & walls (including deduction) if any



2. a) Define preliminary (approximate) estimate object of approximate estimate and enumerate the methods of approximate estimate. **8**

b) Describe the mode of measurements for painting of doors and windows. **8**

**OR**

3. a) The following table is an extract from the longitudinal section of a road earthwork survey. Calculate quantity of earthwork from following data formation width 12 m wide slope **10**

i) Banking 2:1

ii) Cutting 1.5:1

Chainage	0	30	60	90	120	150	180
RL of ground	99.70	99.80	100.30	100.50	100.80	100.90	100.60
RL of formation	100.50		in 300 (+)		in 150 (-)		

b) What are the various types of contract? **6**

4. a) Write down detailed specification of the following **any two**. 8  
 i) Laying PCC 1:4:8 mix in foundation.  
 ii) 12 mm thick cement plaster in cement mortar in proportion.  
 iii) Oil painting to wall surfaces.
- b) What do you understand by task work of labourer? Explain the factors affecting task work. 8

**OR**

5. a) Give the rate analysis of the following **any two** item of work. 10  
 i) 12 mm thick internal cement plaster in C.M. 1:4.  
 ii) 10 cm thick cement concrete (1:3:6) for flooring.  
 iii) RCC (1:2:4) work with 2% steel beam.
- b) Define rate analysis. Discuss the factors affecting rate analysis. 6
6. a) What is tender notice what information should be included in detail tender notice. 8  
 b) Describe earnest money deposit and security. 8

**OR**

7. a) Write a short note on : 8  
 i) Arbitration.  
 ii) Land acquisition procedure and act.
- b) What are the different types of tenders? And adoptability of each type. 8
8. a) Define valuation and explain the purposes of valuation. 8  
 b) A person has purchased an old building at the cost of Rs.90 lakh on the basis that the cost of land is Rs.50 lakh and cost of building structure 40 lakh. Considering future life of building as 20 years. Calculate the amount of sinking fund at 4% interest, when scrap value is 10% of building structure. 8

**OR**

9. a) Distinguish between 8  
 i) Scrap value and salvage value  
 ii) Book value and market value
- b) Write a short note on **any two** of the following. 8  
 i) Mortgage  
 ii) M.A.S. Account  
 iii) Issue rates & stores account.

\*\*\*\*\*