

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION – SUMMER 2025

Subject Code:3170615

Date:21-05-2025

Subject Name:Engineering Economics, Estimation and Costing

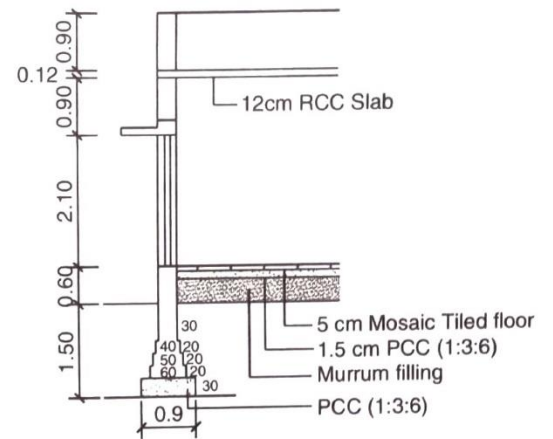
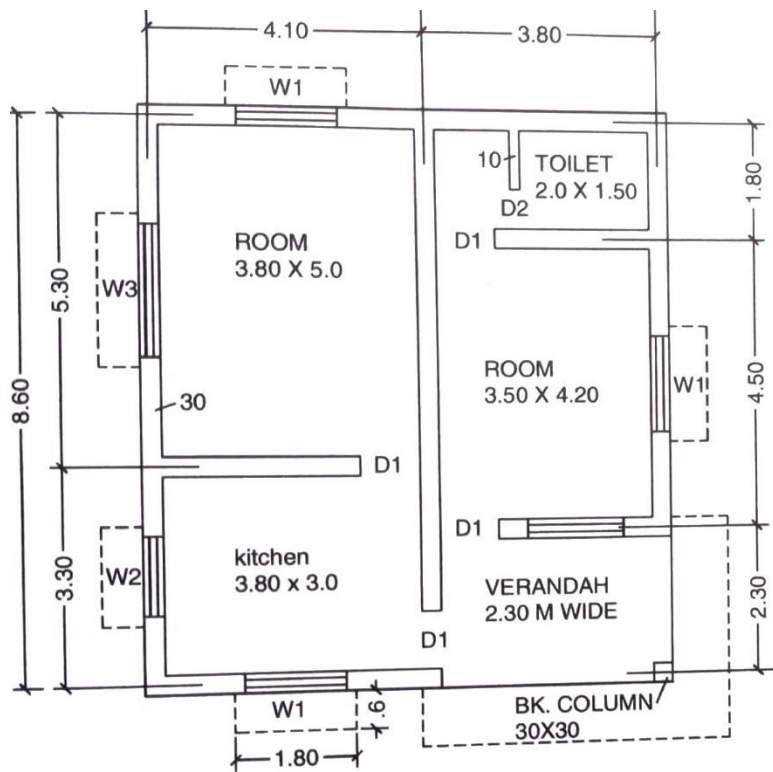
Time:02:30 PM TO 05:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	Marks
Q.1 (a) What are the essential qualities of a good estimates?	03
(b) Write a note on following. (1) Provisional sum (2) Contingencies	04
(c) Determine the following quantity of items of works by considering given drawing figure -1 of a residential building. (1) Providing and laying P.C.C (1:3:6) for foundation (2) Earthwork in excavation for foundation. (3) Brick Masonry work up to plinth level in C.M. (1:6).	07
Q.2 (a) Explain project cash flow diagram with factors affecting it.	03
(b) Enumerate and discuss various types of estimates.	04
(c) Discuss evaluation of public projects	07
OR	
(c) Explain Effect of Taxation on comparison of alternatives with Suitable Example	07
Q.3 (a) What is the importance of specifications?	03
(b) Write detail specifications for 1 st class brickwork in CM (1:6).	04
(c) Define Tender and draft a typical tender notice for civil engineering works.	07
OR	
Q.3 (a) What are the purposes of analysis of rates?	03
(b) Discuss the essential principles of writing good specifications.	04
(c) Write note on: Liquidated damages and unliquidated damages.	07
Q.4 (a) What do you mean by Task or out-turn of work? How is it calculated?	03
(b) Calculate the material required for 1 st class brickwork in CM (1:6) for 10 m ³ .	04
(c) What are the types of contracts? Describe them with their advantages and disadvantages.	07
OR	
Q.4 (a) What are the qualifications and functions of a valuer?	03
(b) Calculate the material required for Cement concrete (1:4:8) for 10 m ³ .	04
(c) What is depreciation? Explain the methods for calculating depreciation.	07
Q.5 (a) Distinguish between scrap value and salvage value.	03
(b) Explain Obsolescence, giving example.	04
(c) A motor car was purchased in Rs.12000/-. Assuming its salvage value at the end of 6 years to be Rs.3000/-. Determine the amount of depreciation for each year by constant percentage method.	07
OR	
Q.5 (a) Describe Security deposit.	03
(b) Differentiate between Estimating and Valuation.	04
(c) The cost of newly constructed building is Rs. 100000/-. The life of the building is 60 years. The scrap value of building is 10% of its cost. Find the book value of the building after 35 years by Straight line method.	07



SECTION OF WALL

SCHEDULE OF OPENINGS

Type	Nos.	Size
D1	5	0.90 x 2.10
D2	1	0.60 X 2.10
W1	3	1.50 X 1.20
W2	2	1.20 X 1.20
W3	1	2.00 X 1.20
V	1	0.60 X 0.45

Figure-1 (All dimensions in Meter)
