

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2023****Subject Code:3170615****Date:14-12-2023****Subject Name: Engineering Economics, Estimation and Costing****Time: 10:30 AM TO 01:00 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 estimator?	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) Earthwork in excavation for foundation. (2) B.B.C.C in foundation (1:3:6). (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) Give rules of deductions in plastering and pointing work.	04
	(c) Explain effect of taxation on comparison of alternatives with suitable example.	07
	OR	
	(c) Discuss evaluation of public projects.	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) Draft a tender notice for construction of School Building, on behalf of R&B department, Government of Gujarat. The estimated cost of work is Rs. 20, 12, 46, 000/-	07
	OR	
Q.3	(a) Define Specifications and mention their objectives.	03
	(b) What are the essential principles of good specification writing?	04
	(c) Write note on: Liquidated damages and unliquidated damages	07
Q.4	(a) What is meant by analysis of rates? How the rate per unit of an item is fixed?	03
	(b) Calculate the material required for 1 st class brickwork in superstructure in C.M (1:6) for 10 m ³ .	04
	(c) What are the types of contracts. Describe them with its advantages and disadvantages.	07
	OR	
Q.4	(a) Write short note on schedule of rates.	03
	(b) Calculate the material required for 20mm thick plaster in wall for 100m ² (C.M. 1:3).	04
	(c) Describe the various reasons for termination of contract.	07
Q.5	(a) Discuss the importance and purpose of valuation.	03
	(b) Define the terms: (1) Salvage value, (2) Market value, (3) Monopoly value, (4). Fair value	04
	(c) Explain 1) Obsolescence 2) Sinking fund.	07

OR

- Q.5 (a) Give the current market rates of the following: (1) Cement (2) Sand (3) Aggregate (4) Bricks (5) Mild steel bars (6) Marble 03
- (b) Differentiate between Estimating and Valuation. 04
- (c) What is Depreciation? Explain various methods of calculating depreciation. 07

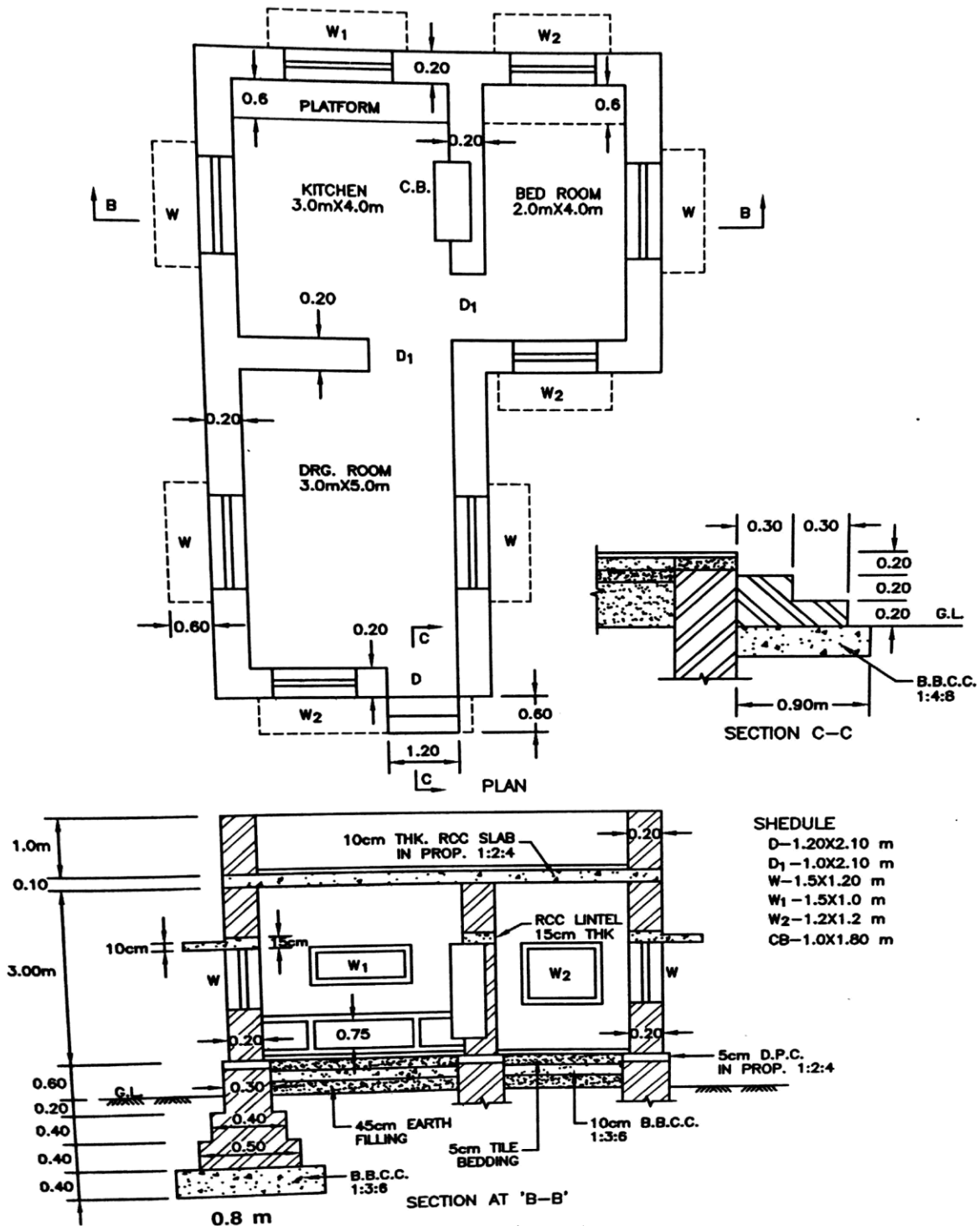


Figure 1
