

Register No: .....

Name: .....

**SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)**  
 (AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)  
**EIGHTH SEMESTER B.TECH. DEGREE EXAMINATION(R), MAY 2024**  
**B. Tech. Civil Engineering**  
**(2020 SCHEME)**

Course Code : 20CET402  
 Course Name : Quantity Surveying and Valuation  
 Max. Marks : 100

Duration:3 Hours

*(Any missing data may be suitably assumed)*

**PART A**

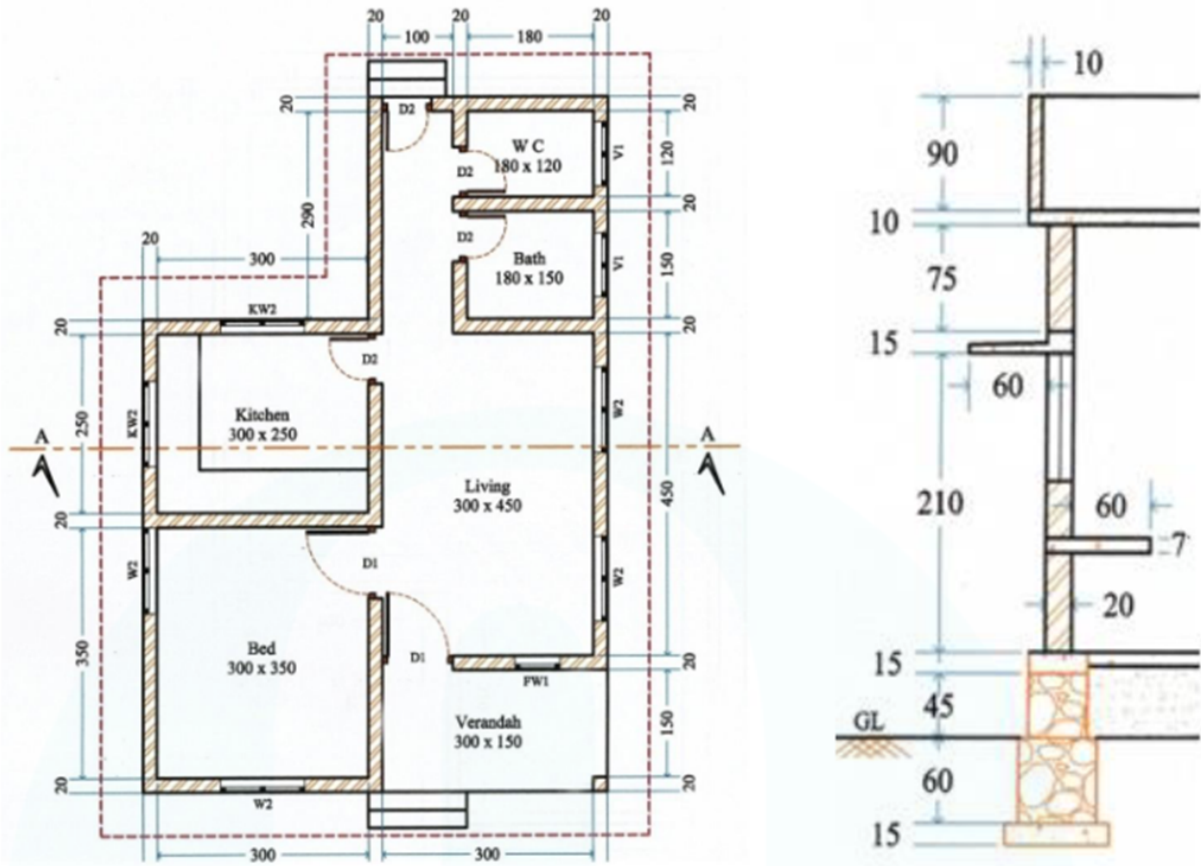
*Answer any two full questions, each carries 10 marks.*

1. Calculate the amount required for carriage of 2500 kg of steel reinforcement to be brought from a source 7 km away from the site. The vehicle will reach 75 m away from the construction site. CPWD data are as follows: Mechanical transport of 1 tonne of steel - 1 km@Rs.69.93; 2 km@Rs.79.29; 5 km@Rs.106.07; beyond 5 km upto 10 km per km @Rs.7.72 ; and for transport of 1 tonne of steel by manual labour - Rs.144.20 for first 50 m and Rs. 21.16 for every additional 50 m or part thereof. (All rate given are inclusive of profit & overhead). 10
2. Describe the factors affecting cost of Civil Engineering work. 10
3. a) Discuss the detailed specification for cement concrete work in 1:2:4. b) Explain the different units of measurements of materials and works with two examples for each. 10

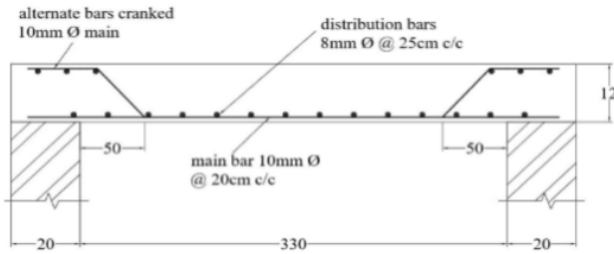
**PART B**

*Answer any two full questions, each carries 25 marks.*

4. List the items of work, their general specifications and units of measurement of a typical septic tank and soak pit with RCC cover slabs and masonry walls. 25
5. Estimate the quantities of the following items from the details given in figure (all dimensions are in cm) below. a)Earthwork in foundation b)Plain cement concrete in foundation c)Brickwork in superstructure in c.m 1:6 d)Wood work for doors and windows e) RCC work for roof slab. 25



6. Calculate the quantity of RCC work involved in the construction of the slab of size 330 cm x 550 cm (internal dimensions) shown in figure below and prepare a bar bending schedule. All dimensions are in centimetres. 25



**PART C**

*Answer any two full questions, each carries 15 marks.*

7. A building costing Rs. 7,00,000.00 has been constructed on a freehold land measuring 100 sq.m. recently in a big city. Prevailing rate of land in the neighbourhood is Rs. 1500 per sq.m. Determine the net rent of the property, if the expenditure on an outgoing including sinking fund is Rs. 24000 per annum. Work out the gross rent of the property per month. 15
8. List and explain the methods for calculating depreciation. 15
9. Define outgoing. Describe the various types of outgoing. 15

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