

B.E. (FULL TIME) DEGREE END SEMESTER EXAMINATIONS, NOV/DEC 2011

CIVIL ENGINEERING BRANCH

SEVENTH SEMESTER - REGULATIONS 2008

CE 9404 ESTIMATING COSTING AND VALUATION ENGINEERING

Time: 3 hours

Max. Marks: 100

Answer All Questions

Part – A (10x2 = 20 marks)

1. What are the purposes of Estimation?
2. A basement car parking is proposed to be built with an exit and entry with a ramp as shown in Figure 2. Calculate the quantity of flooring concrete to be laid with the uniform thickness of 25 cm.
3. Write a format for Standard Data for making windows of type shown in Figure 3 assuming suitable dimensions and sizes.
4. Distinguish 'Market Rates' from 'Schedule of Rates'.
5. Write general specifications for laying Ready Mixed Concrete (RMC) for floor slab in a building.
6. What is the use of Digital Signature Certificate?
7. What are the basic elements of contract for civil engineering works?
8. What do you understand by Percentage Rate Contract?
9. The choice of valuation method will be decided by the purpose of valuation - Why?
10. A land locked land will have to be sold with distress - Comment.

Part – B (5x16 = 80 marks)

11. Write the steps in sequence for the preparation of the following estimates for a large industrial building.
 - (a) Approximate estimate (4 marks)
 - (b) Detailed estimate
 - (i) Quantity estimate (4 marks)
 - (ii) Cost estimate (4 marks)
 - (c) Expected completion estimate while work in progress (4 marks)
12. A) Take out the quantities for the various items of work involved in the construction of the septic tank shown in Figure 12 (16 marks)

OR

12. B) What would you do in the following cases, as an engineer at site, while the work is in progress?
 - (i) An item scheduled, but not provided for in the agreement, has to be executed as an additional item. (4 marks)
 - (ii) An alternative item is to be substituted instead of an original item provided for in the agreement. (4 marks)
 - (iii) An unscheduled item with a new method of construction and with new material has to be implemented. (4 marks)
 - (iv) A contractor has quoted abnormally high rates for certain items and abnormally low rates for certain items. (4 marks)

13. A) (i) Draft a **short tender notice** with basic information for carrying out Patch work in a certain road stretch. (4 marks)
- (ii) Write a **brief tender notice** to carry out an annual maintenance work in Anna University for hostel buildings. (4 marks)
- (iii) Furnish information to a Tender Bulletin Officer to publish a tender for construction of an Auditorium costing Rs. 2 crores through E-Tendering. (4 marks)
- (iv) Draft a **re-tender notice** duly providing information for Reverse Auction. (4 marks)

OR

13. B) Distinguish the following with their significances
- (i) 'Validity Period' and 'Contract Period' (4 marks)
- (ii) 'Shrinkage Period' and 'Idling Period' (4 marks)
- (iii) 'Liquidated Damages' and 'Penal Charges' (4 marks)
- (iv) 'Respondent' and 'Claimant' (4 marks)

14. A) Elaborate any four important conditions of contract for civil engineering works as per IBRD stipulations. (16 marks)

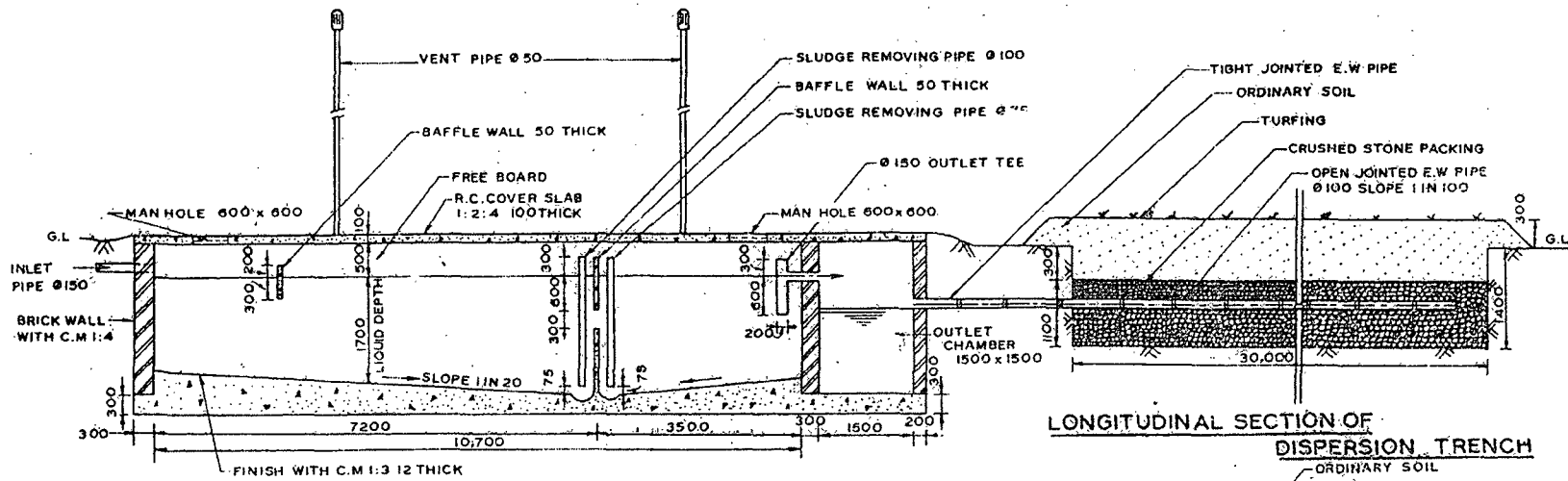
OR

14. B) Write in detail the scope, the context and the evaluation procedures adopted for the following types of contracts:
- (i) Rate Contract (4 marks)
- (ii) Cost Plus Contract (4 marks)
- (iii) Item Rate Contract (4 marks)
- (iv) Piece Work Contract (4 marks)

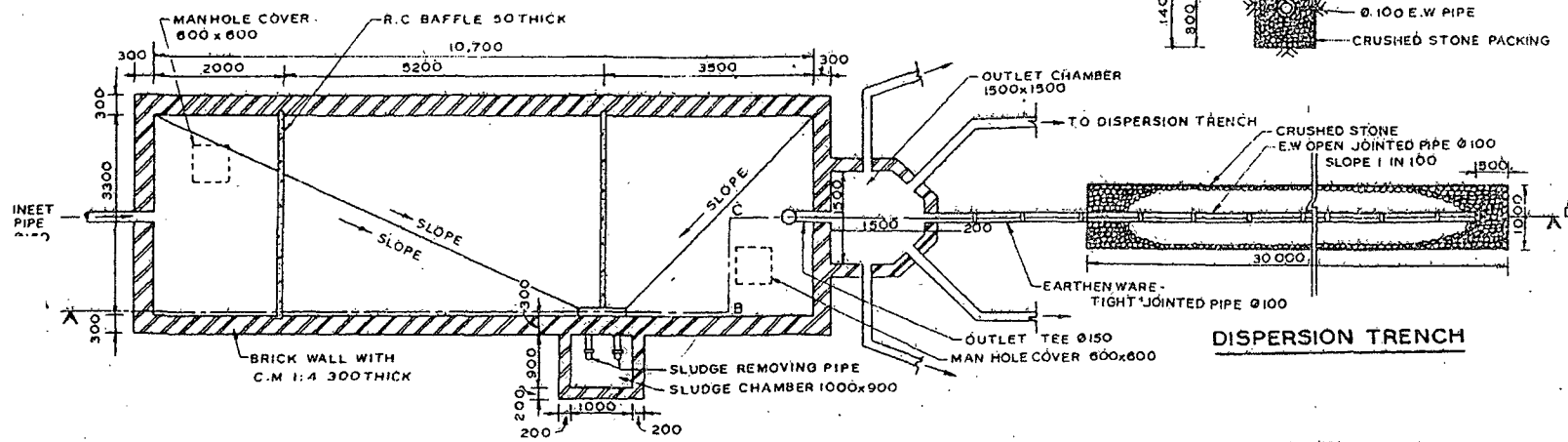
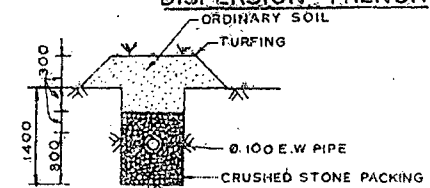
15. A) (i) A property valuing Rs. 2 crores is expected to have a residual value of Rs. 2 lakhs after a 20 year period. The property is proposed to be sold at the 10th year by valuing the property by Declining Balance Method of depreciation. What would be the selling price? (10 marks)
- (ii) A land measuring 10 ha (excluding an open channel) with a general market value of Rs. 10,000/- per sq.m. in the nearby areas has got different features as shown in Figure 15A. Assuming suitable percentages for the areas influenced by the features, divide the land into suitable influence packets and arrive at a composite value for the total land with weight-ages as indicated below for the features. Also compare the land value with the neighboring land. (6 marks)
- | | | |
|---------------------------------|---|-----|
| (a) Area adjoining the High way | - | 2.0 |
| (b) Area adjoining open channel | - | 0.5 |
| (c) Area close to burial ground | - | 0.4 |
| (d) Area facing the lake | - | 1.5 |

OR

15. B) (i) Discuss the scope of FSI in determining the value of land in urban areas. Explain this with an example duly bringing out the following opportunities for the promoter if FSI increases.
- (a) To make profit (3 marks)
- (b) To reduce the sale price of apartments (3 marks)
- (c) To promote business with attractive joint venture (3 marks)
- (ii) What do you understand by depreciation and explain with example any one method of calculating depreciation. (7 marks)



SECTION ON ABCD



SECTIONAL PLAN

ALL LEVELS IN METRES
ALL DIMENSIONS IN MM

SEPTIC TANK
(LARGE INSTALLATION)

FIGURE: 12

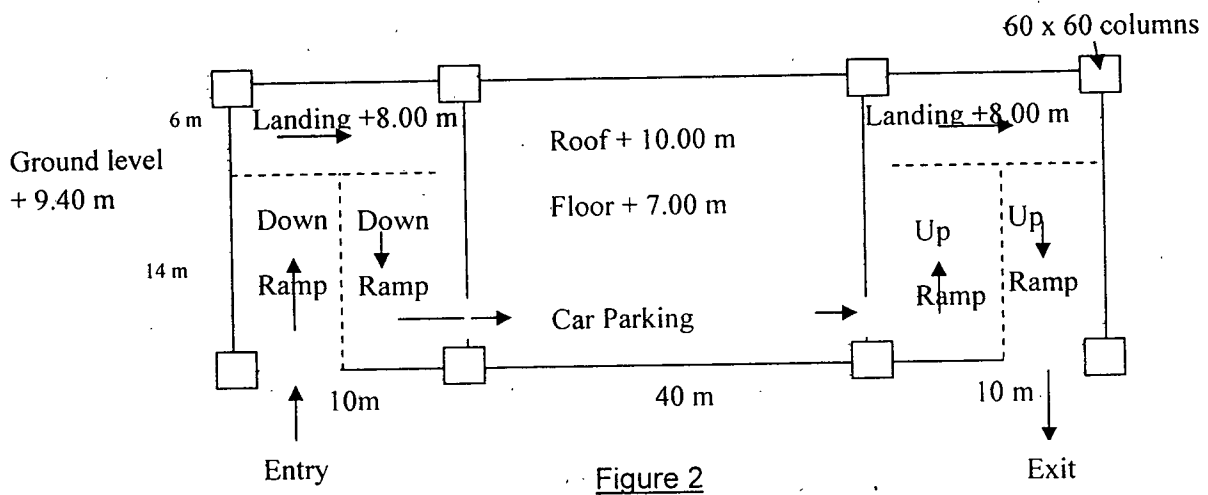


Figure 2

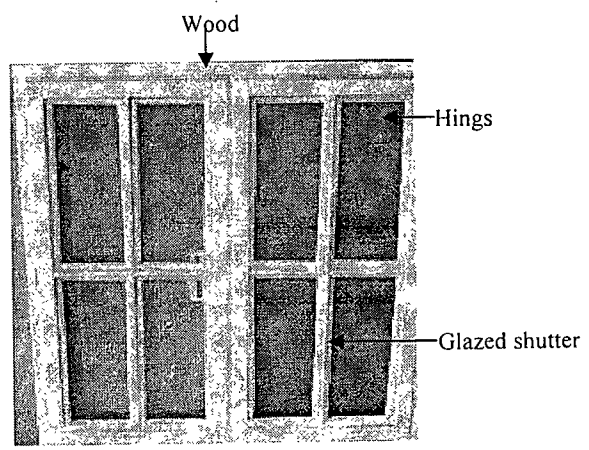
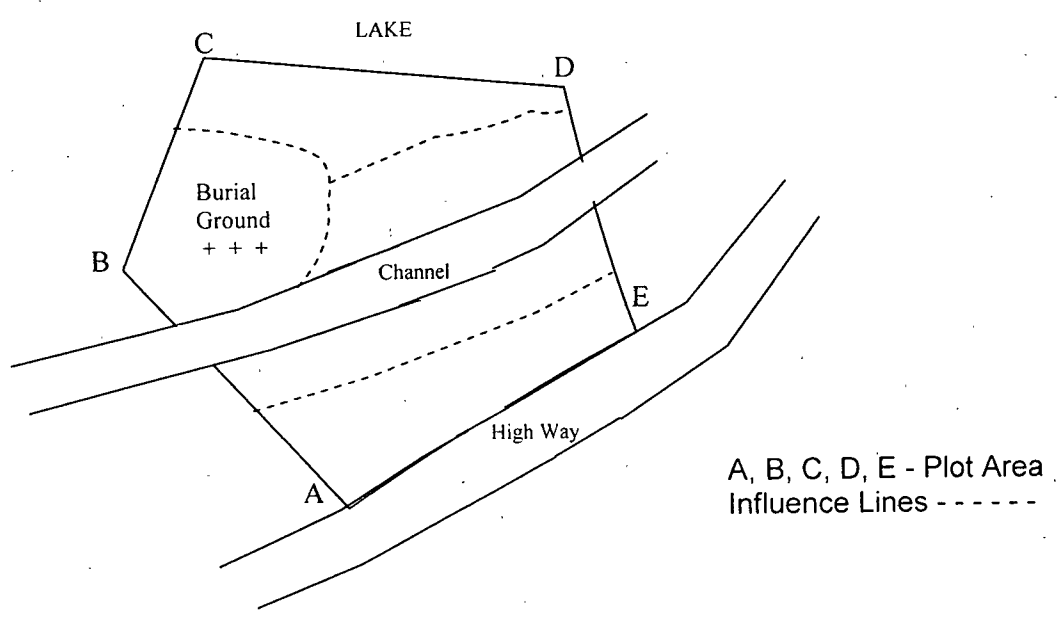


Figure 3



A, B, C, D, E - Plot Area Influence Lines - - - - -

Figure 15A