

# B.Tech Degree VIII Semester Examination May 2003

## CE 801 CONSTRUCTION MANAGEMENT II

(1999 Admissions)

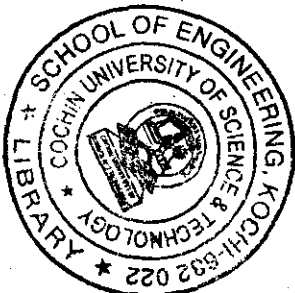
Time: 3 Hours

Maximum Marks: 100

(Draw neat sketches and tabulation wherever required.)

- I. An irrigation canal of trapezoidal cross section 10 M wide at bottom and to carry 2.5M deep water is to be constructed with two inspection tracks 4.0 M wide on the sides of the canal for a length of 10 KM in 5 months time. The soil is generally sandy loam. The profile of canal is in cut and fill requiring about 25 % of earth to be transported from 5 KM distance on an average hauling. Extensive use machineries/ equipment are permitted.  
As senior construction engineer of the contracting firm select the machineries and equipment required for the work. Substantiate your selection by the main considerations for such selection. (20)
- OR**
- II. (a) State the main characteristics and uses of the following :-  
(i) Belt conveyor (8)  
(ii) Tractors (8)  
(b) Enumerate the main factors to be considered in replacement of machineries. (4)  
(c) A small scale industry intends to install a machinery in the workshop. Advise the company which machine to be purchased (with reasoning) from the data given :-
- |                             | <u>Machine A</u> | <u>Machine B</u> |     |
|-----------------------------|------------------|------------------|-----|
| Initial investment          | Rs.1,00,000/-    | Rs.1,50,000/-    |     |
| Annual operating cost       | Rs. 20,000/-     | Rs. 12,000/-     |     |
| Salvage value               | Rs. 5,000/-      | Rs. 3,000/-      |     |
| Estimated life of machinery | 5 years          | 5 years          | (8) |
- III. (a) Write a brief essay on the importance of inventory management, its objectives, inventory controls and tools of inventory control. (10)  
(b) Explain the process of A, B, C Analysis and state the significance of ABC Analysis in control of various types of inventories. (10)
- OR**
- IV. (a) State the basic assumptions and derive the equation for Economic Order Quantity. State its applications under conditions of seasonal bulk purchases and offer of discounts. (12)  
(b) Find the E O Q from the data given below :-  
Average monthly demand : 3000 units  
Inventory carrying cost : 15% of the unit value per year  
Cost of placing order : Rs.250/- per order  
Cost per unit : Rs.10/-  
The safety stock preferred is 6000 units. Find the Max and average inventory level and total cost of purchase per year. (8)
- V. (a) Write a brief essay on formation of capital for a multi crore construction company with special emphasis on types of capital, sources of capital and cost of capital. (10)  
(b) Write brief notes on the following :-  
(i) Shares and debentures (10)  
(ii) Significance of ratio analysis. (10)
- OR**

(Turn Over)



- VI. (a) Explain the following :-  
 (i) Working capital  
 (ii) Budgetary control  
 (iii) Savings & loans. (12)
- (b) Write answers in brief to the following :-  
 (i) What do you understand by equity ?  
 (ii) What factors one should look for in investing in shares ?  
 (iii) How do the shares matter in capital structuring ?  
 (iv) What are the legal aspects of dividends ? (8)
- VII. (a) Explain the main assumptions and principles of accounting. (8)  
 (b) Write brief notes on the following :-  
 (i) Profit and loss accounts  
 (ii) Accounting & Book Keeping  
 (iii) Importance of balance sheet for external & internal agencies. (12)
- OR**
- VIII. Explain in brief *Any Four* of the following :-  
 (i) Trial balance  
 (ii) Assets & Liabilities  
 (iii) Banking Transactions  
 (iv) Single entry and double entry system  
 (v) Disclosure principle. (20)
- IX. (a) Write a brief essay on office automation system with respect to a firm engaged in construction management. (8)  
 (b) Write brief notes on the following :-  
 (i) DSS  
 (ii) MIS  
 (iii) Information handling. (12)
- OR**
- X. (a) A construction firm which handles variety of inventories wants to develop the MIS with respect to inventory control. Describe the process and steps involved in the development of such MIS. (10)  
 (b) Describe the main considerations for the design and storage of files serving the purpose of the firm given in question X(a) above. (10)

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