

B. Tech Degree VI Semester Examination, April 2008

CE 604 (B) CONSTRUCTION EQUIPMENTS AND MATERIAL MANAGEMENT

(2002 Scheme)

Time : 3 Hours

Maximum Marks : 100

(All questions carry **EQUAL** marks)
(Draw neat diagrams/sketches as required)

- I. (a) State and explain the main engineering factors to be considered in the selection of earth moving equipments.
(b) "Multiple functions make an earth moving equipment more versatile". With the example elucidate this statement.

OR

- II. Write brief notes on the following highlighting the functions uses and operations of the following :

- | | |
|-------------------------|---------------------------|
| (i) Cranes | (ii) Belt conveyor system |
| (iii) Trucks and wagons | (iv) Bull dozers |
| (v) Scrapers | |

- III. State the main operations and select the equipments required for such operations in the case of the following :

- | | |
|----------------|---------------|
| (i) Tunnelling | (ii) Blasting |
|----------------|---------------|

OR

- IV. Write brief notes on the following :

- | | |
|----------------------------|--------------------------------|
| (i) Owning cost | (ii) Operating cost |
| (iii) Replacement decision | (iv) Maintenance of equipments |
| (v) Present value concept. | |

- V. (a) State the objectives and functions of materials management.
(b) Write a brief essay on the purchase procedure for purchasing construction materials like cement and steel.

OR

- VI. Write brief notes on the following :

- | | |
|------------------------|-------------------------|
| (i) FIFO & LIFO system | (ii) Tender |
| (iii) Inspection | (iv) Stock verification |
| (v) Earnest money. | |

- VII. Describe the step by step procedure of ABC analysis. State the advantages and disadvantages of ABC analysis.

OR

- VIII. (a) Write brief notes on the following :
(i) VED & FSN analysis (ii) Transportation model and its applicability
(b) Write the objective functions and restraint function of the transportation model given below. Also find the likely feasible initial solutions by NW Corner method and Vogel's approximation method .

Factory	Ware House				Quantity Available
	A	B	C	D	
X	3	2	5	2	15
Y	2	1	4	4	24
Z	2	3	4	3	21
Quantity required	13	12	16	19	60 (Total)

