

**B.Tech. Civil (Construction Management) /
B.Tech. Civil (Water Resources Engineering)**

Term-End Examination

June, 2008

**ET-524(B) : CONSTRUCTION
MANAGEMENT-I**

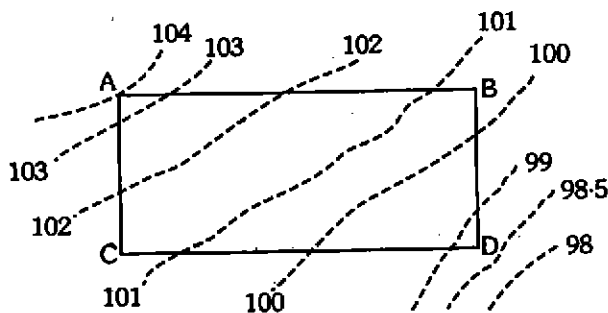
Time : 3 hours

Maximum Marks : 70

Note : Answer any *five* questions. All questions carry equal marks.

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1. (a) Site selection is an important aspect for planning construction projects. Enumerate three major factors spelling out the points in each factor to be considered with brief explanation of each factor. 7
 - (b) What do you understand by Land Use Plan ? Explain with a neat diagram the evaluation of land use. 7
 2. (a) What do you understand by demolition of existing building ? Enumerate the factors which shall determine the appropriate method of demolition. 2+5

- (b) Compute excavation of material for a rectangular site of size 8 m × 4 m having the reduced level of the bottom of excavation as 98.5 m.



3. Differentiate between the following :

$$3\frac{1}{2} \times 4 = 14$$

- Unit rate and Unit price
- Wage rate and Labour rate
- Fully productive time and Semi productive time
- Owning cost and Operating cost

4. What do you understand by formwork ? Explain the purpose and general approach to plan a formwork.

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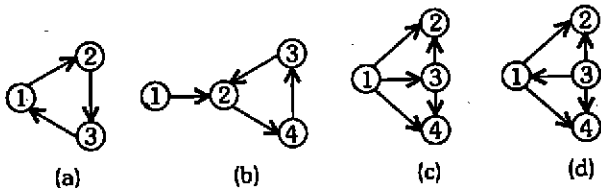
How is formwork quantified for the following cases :

$$4 \times 3 = 12$$

- Slab
- Beam
- Lintel with sunshade
- Column

5. (a) Which of the networks shown in the figures below represents correctly oriented activity arrows :

2



- (b) Define the following :

4x3=12

- (i) Debt Equity Ratio
- (ii) Current Ratio
- (iii) Liquidity Ratio
- (iv) Debt Service Coverage Ratio

6. Do as directed :

7x2=14

- (a) CPM network is (event/activity) oriented. (Choose one)
- (b) PERT network is (event/activity) oriented. (Choose one)
- (c) In CPM, activity times are (probabilistic/deterministic). (Choose one)
- (d) Assemble units is not (PERT/CPM) event. (Choose one)
- (e) Tail of an arrow in CPM represents termination of an activity. (True/False)
- (f) Operating a network may result in change in the critical path. (True/False)
- (g) A construction project can have more than one critical path. (True/False)

7. (a) What are the four categories in which the construction projects can be grouped ? Explain. $4 \times 2 = 8$
- (b) Explain any three conditions laid down by Indian Contract Act to be satisfied for an agreement to be a contract, which are enforceable by law. $3 \times 2 = 6$