



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : CE(PC)601 Construction Engineering & Management

UPID : 006731

CS/B.TECH(N)/EVEN/SEM-6/6731/2024-2025/1018

Time Allotted : 3 Hours

Full Marks : 70

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :

[1 x 10 = 10]

- (i) What is shoring in construction?
- (ii) What is the minimum area required for store room?
- (iii) What is the requirement for separation between the accessory and the main building?
- (iv) What are automatic initiating devices in fire alarm systems?
- (v) How events are represented in a network?
- (vi) What are the requirements of open spaces inside and around a building?
- (vii) What is a scraper?
- (viii) What is meant by the Notice inviting Tender (NIT)?
- (ix) What is the role of an Engineer in an organization?
- (x) What is the role of an arbitrator?
- (xi) How internal privacy is important in a building plan?
- (xii) What is the purpose of a ventilation shaft in a residential building?

Group-B (Short Answer Type Question)

Answer any three of the following :

[5 x 3 = 15]

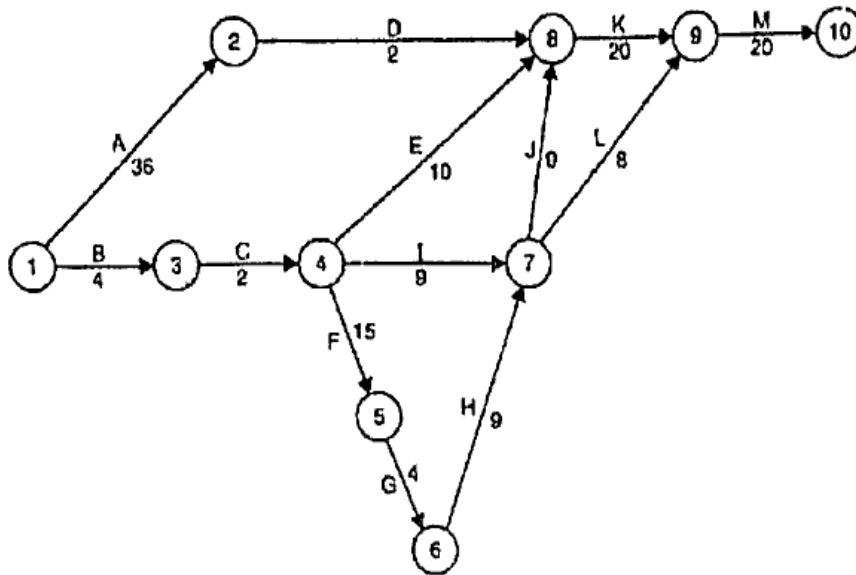
2. Write differences between "Security Deposit" and "Retention Money". [5]
3. Define fire load. [5]
4. Write short notes on the following: a) Formwork b) Shuttering c) Centering d) Staging e) Scaffolding [5]
5. What are the factors to be considered before starting the planning of a building? [5]
6. What is aspect in building planning? [5]

Group-C (Long Answer Type Question)

Answer any three of the following :

[15 x 3 = 45]

7. (a) Briefly state the duties and liabilities of the owner/ Employer w.r.t. a project. [5]
(b) What are the duties and liabilities of the contractor w.r.t. a project. [5]
(c) In which of the scenarios the contract can be terminated by the Employer? [5]
8. (a) How output of bulldozers can be calculated? [5]
(b) A dozer with a blade capacity of 3 m³ has to strip soil having a swelling factor of 25% in thin horizontal layers for a distance of 50 m. The dozer's forward speed is 2 km/hr and the return speed is 5km/hr. In each cycle it consumes a fixed time of 0.4 mins for shifting gears, adjusting blade, etc. Compute the output of the dozer. [10]
9. (a) What is a Labour contract? What are the advantages and disadvantages of it? [5]
(b) Briefly discuss regarding the procedure for invitation of tender for design and construction. [10]
10. (a) The network for a certain project is shown in the following figure, along with the estimated time of completion of each activity marked. Compute the activity times, total float, free float, and independent float for each activity. Locate the critical path on the network. [10]



(b) Write short notes on different types of floats in a network

[5]

- (i) Total float
- (ii) Free float
- (iii) Independent float
- (iv) Interfering float

11. Write Short notes on the following:

[5 +5+5]

- i) Static steel drum roller
- ii) Sheep foot roller
- iii) Advantages and disadvantages of dragline over power shovel.

*** END OF PAPER ***

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