MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

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

UPID : 006731

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 the full form of PERT?

(II) What is deep foundation?

(III) What is rolling resistance?

(IV) What is a Tender?

(V) What is item rate contract?

(VI) What are the documents for the tender form to be submitted?

(VII) What are the minimum requirements of a residential building?

(VIII) What is the rear open space of a corner plot whose area is less than 300 sq.m ?

(IX) What is a fire barrier?

(X) What is the role of a dummy activity in a network?

(XI) What will happen if there is no provision for circulation in a building plan?

(XII) Is a ventilation shaft required for fully air-conditioned residential buildings? provide necessary justifications.

Group-B (Short Answer Type Question)

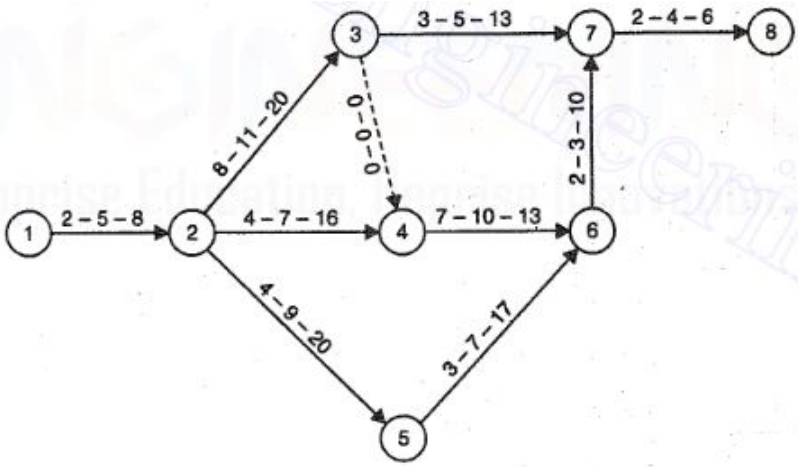
Answer any three of the following : [5 x 3 = 15]

2. Write a short note on different compaction equipment for concrete? [5]
3. Briefly state the duties and liabilities of an Engineer. [5]
4. What is FAR? How to calculate FAR? [5]
5. Briefly state the fire safety requirements in a building. [5]
6. Name the components Manually Operated Electronic Fire Alarm (MOEFA) System, and state the working principle of it. [5]

Group-C (Long Answer Type Question)

Answer any three of the following : [15 x 3 = 45]

7. (a) Briefly discuss the procedure of settlement of dispute in a Civil Engineering contract by Arbitration. [8]
   (b) Discuss the duties and responsibilities of an Assistant Engineer/ Sub-divisional Officer in Public Works Department (PWD). [4]
   (c) Why is it necessary to include the tender notice in the contract document? [3]
8. (a) What are the different types of precast systems? [10]
   (b) Describe the method of laying bricks in walls. [5]
9. (a) Classify different types of buildings. [5]
   (b) What is meant by grouping? How grouping is important for a good building plan? [7]
   (c) Why use of natural lighting must be emphasized in planning a building as far as possible? [3]
10. (a) What do you mean by building bylaws? [3]
    (b) What are the objectives of framing building bylaws? [3]
    (c) Write a short note on components of building automation systems. [9]
11. (a) The following figure shows the network for a construction project, with the three-time estimates of each activity marked. Determine: [5]
    Critical path and its standard deviation



(b) Probability of completion of project in 40 days [5]
[Z (+) = +1.7, Probability (P_r) = 95.54%
Z (+) = +1.8, Probability (Pr) = 96.41%]

(c) Time duration that will provide a 95% probability of its completion in time [5]
[Probability (P_r) = 94.52%, Z (+) = +1.6,
Probability (Pr) = 95.54%, Z (+) = +1.7,]

*** END OF PAPER ***