

C 29684

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**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
OCTOBER 2012**

**CE 09 704—CONSTRUCTION ENGINEERING AND MANAGEMENT**

(2009 Admissions)

Time : Three Hours

Maximum : 70 Marks

**Part A**

*Answer all questions.*

- I. (a) What are the differences between CPM and PERT.  
(b) What are the factors to be considered in the selection of construction equipments ?  
(c) What are the details to be included in notice inviting tenders ?  
(d) Write down the four basic needs of Material management.  
(e) Write a short note on critical path.

(5 × 2 = 10 marks)

**Part B**

*Answer any four questions.*

- II. (a) What do you mean by Float ? Discuss about the different types of floats.  
(b) What do you mean by a job layout ?  
(c) With the help of neat sketch, describe the working of an Earth moving equipment.  
(d) Write down the factors to be considered on the selection of piling equipment.  
(e) Write notes on Muster roll.  
(f) Write notes on Functional areas of material management.

(4 × 5 = 20 marks)

**Part C**

*Answer all questions.*

- III. Following are the duration of activities in a network for a small project :—

Activity	1—2	1—3	2—4	3—4	3—5	4—6	5—6
Duration (weeks)	11	6	8	11	7	8	6

Draw the network.

- (a) Tabulate for each activity the Activity times and Float values.  
(b) Determine the Critical path and Project completion time.

(10 marks)

Or

Turn over

IV. Following table lists the jobs of a network along with their time estimates :—

Activity	1—2	1—6	2—3	2—4	3—5	4—5	6—7	5—8	7—8
$t_0$	3	2	6	2	5	3	3	1	4
$t_m$	6	5	12	5	11	6	9	4	19
$t_p$	15	14	30	8	17	15	27	7	28

- Draw the network.
- Tabulate for each activity the Event times and Slack values.
- Determine the critical Path and Project completion time.

(10 marks)

- V. (a) List the factors to be considered on the selection of Earth moving equipment.  
 (b) With the help of neat sketch, describe the working of Hydraulic Excavator.

(10 marks)

Or

- VI. With the help of neat sketch, describe the working of pile driving equipment. (10 marks)  
 VII. Write a note on quality control to improve unethical situations in the construction industry. (10 marks)

Or

- VIII. (a) List the various types of construction contracts. State the merits and demerits of any four of them.  
 (b) Write a short note on completion certificate of construction works.

(10 marks)

- IX. Explain the objectives of the materials management departments. Give a typical organization structure of materials management department.

(10 marks)

Or

- X. What are some aspects of ethics in construction Industry? What are the provisions in a professional Code., Can a Single Code for Professionals promote ethical improvement in the construction industry?

(10 marks)

[4 × 10 = 40 marks]