

**D 50486**

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Name.....

Reg. No.....

**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
NOVEMBER 2013**

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

(2009 Scheme)

Time : Three Hours

Maximum : 70 Marks

**Part A**

*Answer all questions.*

*Each question carries 2 marks.*

- I. (a) What is a float and how is it useful in a CPM network ?  
(b) How does Milestone Chart differ from a Bar Chart ?  
(c) Write down the factors to be considered on the selection of earth moving equipments.  
(d) Write short note on Measurement book.  
(e) Write short note on objective of inventory control.

(5 × 2 = 10 marks)

**Part B**

*Answer any four questions.*

*Each question carries 5 marks.*

- II. (a) What do you understand by work breakdown structure ? What is its importance in network planning ?  
(b) Explain the importance of time cost trade of in construction management.  
(c) What are the factors to be considered in the selection of pile driving equipments ?  
(d) What are the details to be included in contract documents ?  
(e) Discuss the safety measures to be taken in construction industry.  
(f) Discuss the importance of professional code in construction industry.

(4 × 5 = 20 marks)

**Turn over**

## Part C

Answer all questions completely.

III. The following table enlists the jobs of a network along with their time estimates :

Job		Duration (weeks)		
<i>i</i>	<i>j</i>	Optimistic	Most likely	Pessimistic
1	2	3	6	15
1	6	2	5	14
2	3	6	12	30
2	4	2	5	8
3	5	5	11	17
4	5	3	6	15
6	7	3	9	27
5	8	1	4	7
7	8	4	19	28

Draw Project Network. Calculate length and variation of critical path.

(10 marks)

Or

IV. (a) Draw the network, number the events for following activities from the table given below :

Activity	Immediate Predecessor	Activity	Immediate Predecessor
A	—	H	A, D
B	—	I	B
C	—	J	G
D	B	K	H, I, E
E	C	L	H, I, E
F	C	M	K
G	C	N	L, F, J

(5 marks)

(b) Write short note on direct cost and indirect cost of a project.

(5 marks)

V. With the help of neat sketch, describe the working of hauling equipment.

(10 marks)

*Or*

VI. With the help of neat sketch, describe the working of a earth moving equipment.

(10 marks)

VII. What is the importance of safety programmes in construction projects ? Outline the safety measures that should be taken before any *one* is allowed in a trench or excavation.

(10 marks)

*Or*

VIII. (a) What are the different types of engineering contracts ? Discuss any *two*. (5 marks)

(b) Write a suitable tender notice for the construction of an office building for the tender amount of Rs. 50 lakhs.

(5 marks)

IX. (a) Give the various functions of the materials management and explain them. (5 marks)

(b) What are the concepts of professional ethics in construction industry ? (5 marks)

*Or*

X. What is the importance of professional ethics and discuss the ethical problems in the construction industry ?

(10 marks)

[4 × 10 = 40 marks]