

**CE-802**

**B.E. VIII Semester**

Examination, December 2016

**Construction Planning And Management**

**Time : Three Hours**

**Maximum Marks : 70**

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
ii) All parts of each question are to be attempted at one place.  
iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.  
iv) Except numericals, Derivation, Design and Drawing etc.

**Unit - I**

1. a) Define scheduling. What are the advantages of scheduling?  
b) Explain the limitation of bar chart method.  
c) Differentiate between PERT and C.P.M.  
d) Draw a neat sketch of job layout for construction of multistoreyed building. Explain the different parts.

**OR**

The following information applies to a particular project.

- i) Event 0 is the initial event
- ii) Event 1 is preceded by event 0
- iii) Event 3 is preceded by event 1
- iv) Event 4 is preceded by event 1
- v) Event 2 is preceded by event 1
- vi) Event 3 is preceded by event 2 and 1
- vii) Event 4 is preceded by event 3 and 1
- viii) Event 5 is preceded by event 4.

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For the various activities in the project, the expected times are given:

Activity	0-1	1-3	1-2	2-3	1-4	3-4	4-5
Duration in week	3	16	6	8	10	5	3

- Draw the network diagram for this project.
- Calculate the slack time for each activity and identify the critical path.

### Unit - II

- How will you differentiate between standard equipment and special equipment?
  - Explain the Direct cost, Indirect cost and cost slope.
  - Explain the factors affecting the selection of construction equipment.
  - Compare the characteristics and applications of different types of earth excavating equipment.

OR

What is the cost of owning and operating a construction equipment? How will you determine the hourly cost of construction equipment?

### Unit - III

- Write a note on tender document.
- Write a short note on "Arbitration".
- Draft a notice inviting tenders for the construction of a canteen building.
- Write a detailed note on construction contracts. Discuss the step by step procedure of awarding contract to a contractor.

OR

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State and explain various types of contracts for executing of civil engineering works. Give the merits and demerits for each of them.

### Unit - IV

- Explain the measurement book.
  - Explain the Imprest account and final bill.
  - Explain the general specification of a first class building.
  - Explain in detail the different types of specification.

OR

Write detailed specification for the following items:

- M20 concrete (P.C.C.)
- Fixing of GI sheet on roof

### Unit - V

- Explain the various facilities required in a construction project.
  - What safety measures will you adopt for drilling and blasting jobs?
  - Describe five important provisions of the labour welfare Act 1965.
  - Explain the three types of organisation and explain the suitability of each type for different construction.

OR

Write short notes on the following:

- Transportation model
- Waiting line model

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