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## Question Paper Code: 21261

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015

Sixth Semester

Civil Engineering

## CE 2353/CE 63/10111 CE 604 — CONSTRUCTION PLANNING AND SCHEDULING

(Regulations 2008/2010)

(Common to PTCE 2353 – Construction Planning and Scheduling for B.E. (Part-Time) Fourth Semester Civil Engineering Regulations 2009)

Time: Three hours Maximum: 100 marks

Answer ALL questions.

PART A —  $(10 \times 2 = 20 \text{ marks})$ 

- 1. What do you understand about precedence relationship among activities?
- 2. How does the learning process affect the rate of productivity?
- 3. What is scheduling?
- 4. Distinguish between lead time and lag time.
- 5. Differentiate direct from indirect project costs.
- 6. What are the main classifications of cost control?
- 7. What are the causes of accidents in construction industry?
- 8. Define 'quality circle'.
- 9. What is meant by relational database?
- 10. List the types of information used for decision-making.

## PART B — $(5 \times 16 = 80 \text{ marks})$

11. (a) What is Construction planning? Explain in detail about the basic concepts involved in the development of construction plan. (16)

Or

- (b) Discuss the purposes of coding of activities. Codify the activities involved for a primary school building construction. (16)
- 12. (a) Describe the similarities, common features and differences between critical path method and precedence network analysis. (16)

(b) The following table gives data about duration and cost of various activities of a project. The project overhead costs are Rs. 2,500 per week. Find the optimum duration and cost associated with it. (16)

|          | Duration | 1     | Cost   |        |  |  |
|----------|----------|-------|--------|--------|--|--|
| Activity | Normal   | Crash | Normal | Crash  |  |  |
| 1-2      | 4        | 2     | 4,000  | 12,000 |  |  |
| 2-3      | 5        | 2     | 3,000  | 7,500  |  |  |
| 2-4      | 7        | 5     | 3,600  | 6,000  |  |  |
| 3-4      | 4        | 2     | 5,000  | 10,000 |  |  |

13. (a) Illustrate the process of profit estimation by 'percentage completion method' and 'completed contract method' with suitable examples. (16)

Or

- (b) (i) How will you forecast the activity cost control? (8)
  - (ii) How the schedule and budget updates are used in construction work? (8)
- 14. (a) 'Comprehensive Legislation for Safety and Welfare of Workers is the prime need for Indian Construction Industry'- Comment on the statement by quoting examples. (16)

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- (b) (i) Describe about the material specifications to ensure quality control in construction. (8)
  - (ii) Explain the methods of statistical quality control with examples. (8)
- 15. (a) Explain the information transfer and flow in organising project information. (16)

Or

- (b) (i) Briefly explain the hierarchical models for organising database. (8)
  - (ii) Enumerate the requirements of computerised Management Information System. (8)