

Roll No.....

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CE-802

B.E. VIII Semester

Examination, June 2015

Construction Planning And Management

Time : Three Hours

Maximum Marks : 70

Note : Attempt all questions. All questions carry equal marks.
Assume suitable data if necessary.

1. a) Explain the meaning and significance of the following terms used in the network analysis:
- i) Dummy activity
 - ii) Total float
 - iii) Cost slope
 - iv) Constructional obligation period.
- b) Write the algorithm for the analysis of a network by PERT.

Or

2. a) What are the requirements of an ideal form work for concreting? Give your suggestions for form work economy. Give a self explanatory sketch of form work for roof construction.
- b) A small maintenance project consisting of jobs in the table ahead. With each job normal time and crash time are given in days. The cost of crashing a job in rupees per day is also given. The overhead cost is Rs 60 per day.

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| Activity | Normal time (Days) | Normal cost (Rs) | Crash time (Days) | Crash cost (Rs) |
|----------|-----------------------|---------------------|----------------------|--------------------|
| 1-2 | 5 | 60 | 4 | 90 |
| 1-3 | 7 | 150 | 5 | 250 |
| 2-3 | 3 | 30 | 2 | 60 |
| 3-5 | 6 | 150 | 4 | 250 |
| 2-4 | 3 | 100 | 3 | 100 |
| 1-5 | 9 | 115 | 7 | 175 |
| 4-5 | 4 | 100 | 2 | 24 |

Find the minimum cost, normal duration, optimum and minimum duration of the project.

3. Enumerate various excavating equipments. Explain any one of them on the basis of the following points:

- Neat sketch of equipment
- Size and capacity of equipment
- Optimum depth of cut
- Angle of swing
- Factors affecting output.

Or

4. a) Why concrete is vibrated? Explain the different types of vibrators.

- b) Calculate the output of roller using the following data:

- Number of drum = 1;
- Width of roller = 1.4m;
- Speed of roller = 16 kmph;
- Compacted thickness = 25cm.
- Overlap = 33%
- Number of passes = 10
- Operating efficiency = 90%

5. a) Draft a notice inviting tenders for the construction of a canteen building.

- b) Explain the salient features of contract document.

Or

6. a) Write a detailed note on construction contracts. Discuss the step by step procedure of awarding contract to a contractor.

- b) Differentiate between the following.

- Security deposit and Earnest money deposit.
- Imprest account and secured advance.
- Administrative approval and Technical sanction

7. a) What are the objectives of specifications? Explain in detail the different types of "specifications".

- b) Explain the different types of bills used in PWD account.

Or

8. a) Describe specification for two types of floorings.

- b) Describe the following:

- Measurement book.
- Cash book
- Materials at site account.

9. a) Discuss the different types of construction organization.

- b) Explain the various labour welfare facilities provide in construction project.

Or

10. a) Describe the following:

- Transportation model.
- Waiting line model.

- b) What safety measures will you adopt while demolishing a building in a dense built up area?