

**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.

[2]

| Activity | Normal time<br>(Days) | Normal cost<br>(Rs) | Crash time<br>(Days) | Crash cost<br>(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. RGPVONLINE.COM
- 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%

[3]

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 RGPVONLINE.COM
  - 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?