Code: 9A01710 **R09**

B.Tech IV Year I Semester (R09) Supplementary Examinations June 2016

CONSTRUCTION TECHNOLOGY & PROJECT MANAGEMENT

(Civil Engineering)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

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1 (a) Explain the various activities involved in construction projects (Take one or two examples). How do you prepare construction schedules and records?
(b) Write a note on construction codes and their importance.

2 (a) What is a form work? Explain their objectives, requirements and materials for formworks?
(b) What is concreting and explain about different types of concreting methods?

3 What is earthwork? Write about the process of site development for construction activity and mention any three types of excavation processes.

4 (a) What are the principal methods of geophysical exploration? Describe any one of them.
(b) List different types of explosives and explain any two in detail.

5 (a) What are the methods of project scheduling? What is meant by scheduling and controlling?
(b) Explain bar chart and milestone charts in brief.

6 (a) What do you understand by CPM and explain its significance. Plot a neat sketch for different time estimates and explain the Fulkerson's rules for numbering the events of a network.
(b) What are the purposes of numbering events?

7 (a) Differentiate between CPM and PERT.
(b) Write the steps to determine critical path in PERT network.
(c) What do you understand by work breakdown structure? What is its importance in network planning?

8 The following table lists the jobs of a project with their time estimates in days.

Activity	T_o	T_m	T_p
1 - 2	3	6	15
1 - 6	6	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 the PERT network and determine the expected project completion time.

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