

CBCS SCHEME

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15CT64

Sixth Semester B.E. Degree Examination, June/July 2018 Construction Planning and Control

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. Define Project. What are the objectives of a project? List the stake holders involved in a construction project. (08 Marks)
- b. What are the objectives of planning in any Construction Project and why is planning important? (08 Marks)

OR

- 2 a. Define : i) Activity ii) Dummy activity iii) Free float iv) Total float. (06 Marks)
- b. Define Project Management. Briefly discuss about the phases involved. (10 Marks)

Module-2

- 3 a. List out the differences between CPM and PERT. (06 Marks)
- b. Determine the total float and free float also locate the critical path. If the duration of activity G is changed from 6 days to 8 days, how does it affect the total duration of the project. (10 Marks)

Activity	A	B	C	D	E	F	G	H	I	J	K
Predecessor	-	-	A	A	D	C	C	B	D, F	E	G, H
Duration	2	6	5	4	3	4	6	5	5	6	4

OR

- 4 a. Elaborate on different methods of construction scheduling. (06 Marks)
- b. Consider the following table summarizing the details of a project. (10 Marks)

Activity	1-2	1-3	2-4	3-4	4-5	3-5
T _o	2	3	5	2	1	6
T _m	5	12	14	5	4	15
T _p	14	14	17	8	7	30

What is the probability of completing the project on or before 32 weeks?

Module-3

- 5 The following table gives data of normal (time and cost) and crash (time and cost) for a project. The indirect cost per day is 28 Rs /-.

Activity	1-2	1-3	2-4	2-5	3-4	4-6	5-6	6-7
Normal Time	6	4	5	3	6	8	4	3
Crash Time	4	2	3	1	4	4	2	2
Normal Cost	60	60	50	45	90	80	40	45
Crash Cost	100	200	150	65	200	300	100	80

Determine minimum total time and corresponding cost.

(16 Marks)

OR

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.

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- 6 a. Explain work breakdown structure with example. (08 Marks)
b. With the help of a graph, explain Crash cost, Normal cost, Crash time and Normal time. (08 Marks)

Module-4

- 7 a. Explain briefly the classification of cost control techniques. (08 Marks)
b. Explain the importance of cost and schedule control in construction industry. (08 Marks)

OR

- 8 a. Explain budgeting and cash flow with example of a project. (08 Marks)
b. Explain financial forecasting and its importance in construction industry. (08 Marks)

Module-5

- 9 a. List and explain various types of information that is essential for construction industry. (08 Marks)
b. What do you mean by management information system? List the requirements of management information systems. (08 Marks)

OR

- 10 a. Write briefly the controlled database management system in construction projects. (08 Marks)
b. Explain Relational model of databases. (08 Marks)

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