CBCS SCHEME

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15CT64

Sixth Semester B.E. Degree Examination, June/July 2019
Construction Planning and Control

Time: 3 hrs. Max. Marks: 80

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

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.

Module-1

1 a. Define project. List the steps involved in planning for a project. **(08 Marks)**

b. List traits of a project management. Explain in brief about various stake holders involved in a construction project. **(08 Marks)**

OR

2 a. Define project management. Explain planning, scheduling and controlling. **(08 Marks)**

b. Explain basic concepts involved in the development of construction plans. **(08 Marks)**

Module-2

3 a. Explain activity times used in CPM analysis. **(06 Marks)**

b. Following data relates to a job

Activity	A	B	C	D	E	F	G	H
Duration	3	4	5	7	7	6	3	8
Predecessor	-	-	B	A	C	B, D	C	E, F

Draw the network and compute EST, EFT, LST, LFT, TF and FF for the various activites. What is the duration of project? Identify the critical activites. **(10 Marks)**

OR

4 a. Explain five types of events with sketches. **(05 Marks)**

b. A small project consists of 7 activites. The time estimate in weeks of different activites are given below.

Activity / Time	1-2	1-3	1-4	2-5	3-5	4-6	5-6
T_o	1	1	2	1	2	2	3
T_m	1	4	2	1	5	5	6
T_p	7	7	8	1	14	8	15

i) Draw the network and determine the critical path.

ii) What is the probability of not completing the project within 18 weeks?

iii) What is the probability of completing the project 3 weeks earlier than the expected time? **(11 Marks)**

Module-3

5 The following table gives data on normal time and cost, crash time and crash cost for a project. The indirect cost per day is 10kg.

Activity	1-2	1-3	2-4	2-5	3-4	4-6	5-6	6-7
NT	6	4	5	3	6	8	4	3
NC	60	60	50	45	90	80	40	45
CT	4	2	3	1	4	4	2	2
CC	100	200	150	65	200	300	100	80

a. Draw the network for project.
b. Find critical path.
c. Determine minimum total time and corresponding cost. **(16 Marks)**

OR

6 a. What is work breakdown structure? Explain various application of WBS in a project. **(08 Marks)**

b. Explain terms normal time, normal cost, crash time, crash cost and crash slope using graph. **(08 Marks)**

Module-4

7 a. Explain brief the classification of cost control system. **(08 Marks)**

b. Explain 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. What do you means by management information system? Write down requirements of management information system. **(08 Marks)**

b. Write short notes on:
   i) Types of project information.
   ii) Project information transfer and flow. **(08 Marks)**

OR

10 a. Explain relational model of databases. **(08 Marks)**

b. Write short notes on:
   i) Role of computers in project management.
   ii) Accuracy and use of information. **(08 Marks)**

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