

320655(20)

BE (6th Semester)
Examination, April-May, 2017

[New Scheme]**Construction Planning**

Time Allowed : 3 hours *Maximum Marks* : 80

Minimum Pass Marks : 28

Note : (i) Part (a) of each question is compulsory and attempt any two parts from (b), (c) and (d) of each question.

(ii) The figures in the right-hand margin indicate marks.

1. (a) Define Planning. [2]
(b) Describe the steps of Technical Planning. [7]
(c) Explain the classification of Scheduling. [7]
(d) Describe the methods of Scheduling in brief. [7]

2. (a) Define Critical Path in network. [2]
(b) A project is composed of seven activities whose time estimates are listed below. Time duration in weeks.

Activity	Optimistic Time(t_o)	Most likely Time(t_m)	Pessimistic Time(t_p)
1 - 2	1	1	7
1 - 3	1	4	7
1 - 4	2	2	8
2 - 5	1	1	1
3 - 5	2	5	14
4 - 6	2	5	8
5 - 6	3	6	15

Determine the following : [7]

- (i) Draw project network and determine critical path.
(ii) Determine variance and standard deviation of C.P.
(c) Write the necessity of good Scheduling. [7]
(d) Write the advantages of Network Technique. [7]

3. (a) What is CPM ? [2]

(b) The following table gives the activities in a construction project :

Activity	Duration
1 - 2	20
1 - 3	25
2 - 3	10
2 - 4	12
3 - 4	6
4 - 5	10

(i) Draw the network for the project.

(ii) Find the critical path.

(iii) Find free, total and independent float for each activity. [7]

(c) What are the limitations of CPM ? [7]

(d) Briefly explain the procedure of Network Analysis. http://www.csvtuonline.com [7]

4. (a) Define Cost Analysis. [2]

(b) Write the objectives of Cost Control. [7]

(c) Define resource allocation and write the approaches for resource allocation. Write the factors affecting resource allocation. [7]

(d) Define resource levelling and write the types of resource levelling. [7]

5. (a) Define Safety Audit. [2]

(b) Write the causes of an accident in construction industry. [7]

(c) Explain Quality Planning and elements of Quality. [7]

(d) Write the safety hazards in construction field. [7]
