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Eighth Semester B.Arch. Degree Examination, June/July 2019 Project and Construction Management

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Discuss the important functions of management in context of the construction projects. (10 Marks)
- b. What is project life cycle? Explain the phases of a project life cycle. (10 Marks)

OR

- 2 Elaborate the types of organization structures. Suggest an organization chart for a small construction firm. (20 Marks)

Module-2

- 3 Write short notes on: (20 Marks)
 - a) Decision tree
 - b) SWOT Analysis
 - c) Cost-Benefit Analysis
 - d) Value Engineering

OR

- 4 Explain the construction team. Describe the role of each member in the team. (20 Marks)

Module-3

- 5 a. Draw the network of a project whose activities and duration is given below:

Activity	Duration
1 – 2	3
1 – 3	4
1 – 4	14
2 – 6	5
3 – 4	3
3 – 5	4
3 – 6	6
4 – 5	1
5 – 6	1

- b. Determine the earliest and latest start and finish times of each activity.
- c. Find the critical path for the network.
- d. Determine the Total float, free float and independent float for each activity. (20 Marks)

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.

OR

- 6 a. Draw the network for a construction project whose activities and three time estimates are given below:

Activity	t_0	t_L	t_p
1 – 2	2	5	8
2 – 3	8	11	20
3 – 4	0	0	0
2 – 4	4	7	16
2 – 5	4	9	20
4 – 6	7	10	13
5 – 6	3	7	17
3 – 7	3	5	13
6 – 7	2	3	10
7 – 8	2	4	6

Normal table values that can be used

Z(+)	Probability %
+1.0	84.13
+1.1	86.43
+1.6	94.52
+1.7	95.54

- b. Find the critical path and its standard deviation.
 c. Probability of completing the project in 40 days.
 d. Time duration that will provide 95% probability of its completion in time. (20 Marks)

Module-4

- 7 Write short notes on:

- a) Project updating and information required for updating the project (05 Marks)
 b) Steps in the process of updating. (10 Marks)
 c) The updating cycle. (05 Marks)

OR

- 8 a. What is quality control management? (05 Marks)
 b. What are the factors affecting the quality of construction? (15 Marks)

Module-5

- 9 Wrote short notes on :

- a) Standard and special equipment
 b) Parameters considered in selection of equipments
 c) Economic life of an equipment
 d) The necessity to mechanise. (20 Marks)

OR

- 10 Describe and sketch any four equipments used in large scale construction. (20 Marks)
