Eighth Semester B.Arch Degree Examination
(2013 Scheme)
13AR1807: CONSTRUCTION MANAGEMENT

Time: 3 Hours   **Max. Marks: 100**

1. Write short notes on: (8 x 5 = 40 Marks)
    A) Economic analysis
    B) Types of construction Projects
    C) Mile stone charts
    D) Work Break down Schedule
    E) Linear Scheduling Method
    F) Probability Distribution Curve
    G) Crash estimate
    H) Expediting the project

Part-B
Module-I

2. a) Describe the principles, objectives and stages of planning a construction project. What are the types of plans adopted? Discuss the limitations of planning. (15 Marks)

or

2.b) Describe in detail the scope of construction management in the construction sector. Describe the major activities involved in the management of construction projects. Highlight the importance of planning in construction management by describing the process and stages of planning. (15 Marks)

Module-II

3.a) Using the data given below draw the Network, Number the nodes using Fulkerson's rule, Find the critical path, Total Float, Free Float and Independent Float.

Activity	A	B	C	D	E	F	G	H	I	J	K
IPA	-	-	-	A	B,C	C	B,C	E	D,G	E	F,H
Duration	5	3	8	4	9	7	4	7	5	13	6

End of activities I, J & K signifies the end of the project (15 Marks)

or

3.b) What are the objectives of scheduling? Describe the Life cycle curve & Line of Balance technique in detail. (15 Marks)

Module-III

4. a) A project consist of 7 activities with interdependencies shown as below. Draw the network, find the critical path & the probability of completing the project in 35 days.(15 Marks)

Activity	A	B	C	D	E	F	G
IPA	-	-	A	B	A	B	C,D
t_o	6	5	4	4	4	2	4
t_m	9	8	7	7	7	5	10
t_p	18	17	22	16	10	8	22

or

4. b) What is resource allocation? What are the differences between resource smoothing and levelling? Describe in detail the steps involved in resource smoothing and leveling.(15 Marks)

Module-IV

5. a) Project management software packages are emerging as powerful tools for construction managers. Explain the features of any construction management software and also differentiate it with MS Project (15 Marks)

or

5.b) Determine the minimum cost & optimum duration for the project of the network. The data of each activity of network is given in the following table. Indirect cost may be taken at Rs. 2500/-per week. (15 Marks)

| Activity | Normal | | Crash | |
	Normal Time (Weeks)	Cost (Rs.)	Crash Time(Weeks)	Cost(Rs.)
0-1	3	5000	2	5500
1-3	14	10000	11	13000
1-2	7	6000	4	9000
2-3	9	11000	6	18000
3-4	4	9000	3	12000
4-5	3	6000	2	7800