

8E4033

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[Total No. of Pages : 3]

8E4033**B. Tech. VIII Semester (Main/Back) Examination-2014****Civil Engineering****Project Planning & Const. Management (8CE3)****Time : 3 Hours****Maximum Marks : 80****Min. Passing Marks : 24****Instructions to Candidates:**

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Unit - I

1. a) Explain "Benefit cost ratio" in brief. (8)
b) Write objectives of construction project management. (8)

OR

1. a) What do you understand by "Risk cost management" for evaluation of projects? (8)
b) Explain categories of construction projects and project development process (8)

Unit - II

2. a) Explain project management techniques. (8)
b) Write importance of project scheduling in brief. (8)

OR

2. Construct a network diagram from the information given in the table below and find the critical path, earliest finish date for the project, total and free floats for activities. (16)

ACTIVITY	IMMEDIATE PREDECESSORS	DURATION(Days)
A	-	4
B	-	8
C	A	6
D	A	8

E	B	6
F	B	5
G	C	5
H	D,E	3
I	E,F	6
J	G,H	9

Unit - III

3. a) Explain time cost trade - off process in brief. (8)
 b) Define cost slope, resources allocation and updating of project networks.(8)

OR

3. The following table gives normal & crash times as well as crash costs for the activities of a project. Draw the network diagram and find the critical path. In case the project duration is required to be crashed by 2 days, which activities will get the priority in crashing? (16)

ACTIVITY	ESTIMATED DURATION		ACTNITY COST	
	NORMAL	CRASH	NORMAL	CRASH
1-2	5	2	600	950
2-4	6	3	700	1250
1-3	4	2	100	300
3-4	7	4	400	850
4-7	9	5	600	920
3-5	12	3	1600	2149
4-6	10	6	1500	1850
6-7	7	4	400	590
7-8	6	4	300	420
5-8	12	7	400	850

Unit - IV

4. a) What are the various types of contracts and tenders? (8)
 b) Illustrate contract document in brief. (8)

OR

4. Write short notes on any four of the following: (16)
 i) Legal aspects of contract
 ii) Contract negotiation
 iii) Award of work and process of tendering.
 iv) Breach of contract and arbitration.
 v) Detail specifications in tender document.

Unit - V

5. a) Explain causes and prevention of accidents at construction sites. (8)
b) Explain safety measure to be followed in various construction works with neat sketch. (8)

OR

5. a) Explain environmental and social aspect of various types of construction projects with example. (8)
b) Explain benefits of computerized information system in project management. (8)
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