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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech III Year II Semester Regular Examinations August-2022**

**CONSTRUCTION PROJECT MANAGEMENT**

(Civil Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

1 What are the different phases in construction project? Explain briefly. L2 12M

OR

2 What are the types of project plans? Explain briefly. L1 12M

**UNIT-II**

3 A project has the following characteristics, Construct a PERT network and compute the probability that the project will be completed within 30 weeks L3 12M

Activity	Predecessor	Duration(weeks)		
		$t_o$	$t_m$	$t_p$
A	-	0.5	2	7
B	A	1	3	5
C	A	1	5	7
D	B	3	5	3
E	C	2	4	9
F	C	3	7	9
G	D,E	4	6	8
H	F	6	8	10
I	G, H	2	6	8
J	G, H	5	8	8
K	I	1	3	8
L	J	3	7	8

OR

4 The following details are available regarding a project L3 12M

i) Construct the CPM network. ii) Determine the critical path, the critical activities & the project completion time.

iii) Compute Total float & Free floats for Non-Critical activities

Activity	Dependency	Duration (months)
A	-	2
B	-	5
C	-	4
D	B	5
E	A	7
F	A	3
G	B	3
H	C,D	6
I	C,D	2
J	E	5
K	F,G, H	4
L	F,G, H	3
M	I	12
N	J,K	8

**UNIT-III**

- 5 Give the information about various activities of network shown in fig. The project overhead costs are @ Rs. 300.0 per day. Determine **L3 12M**  
 (i) Direct cost-duration relationship  
 (ii) Total cost-duration relationship and the corresponding least cost plan (network)

Activity	Normal duration (days)	Normal Cost (Rs.)	Crash duration (days)	Crash cost (Rs.)
1-2	9	8000	6	9500
2-3	5	5000	3	5500

**OR**

- 6 What do you understand by updating? Why is it essential? **L2 12M**

**UNIT-IV**

- 7 Discuss the Material Procurement process in construction organization. **L2 12M**

**OR**

- 8 What are the objectives in cost of quality and organization? **L1 12M**

**UNIT-V**

- 9 What are the preventive measures to be taken during accidents? **L1 12M**

**OR**

- 10 Explain about contract document. **L2 12M**

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