

DEPARTMENT OF CIVIL ENGINEERING: IIT DELHI
CEL 769: Project Planning and Control

2006-2007

MAJOR TEST

TIME: 90 Minutes

1. Develop a project network from the data given in the table. Calculate event times and identify the critical path. Also tabulate the three floats for each of the activities.

Activity	Immediate Predecessor	Duration (days)
A	-	6
B	A	7
C	A	1
D	-	14
E	B	5
F	C,D	8
G	C,D	9
H	D	3
I	H	5
J	F	3
K	E,J	4
L	F	12
M	G,I	6
N	G,I	2
O	L,N	7

2. Given the following network data carryout resource leveling within the minimum project duration for the smallest number of men, assuming all activities to start as early as possible.

Activity	Duration in weeks	No. of men required
0-1	2	5
0-3	2	8
0-6	1	6
1-2	4	0
2-5	1	6
3-4	5	0
3-7	8	6
4-5	4	4
5-8	3	0
7-8	5	4

3. Write short notes on the following:
- (i) LOB Technique
 - (ii) VED Analysis
 - (iii) Updating of CPM network