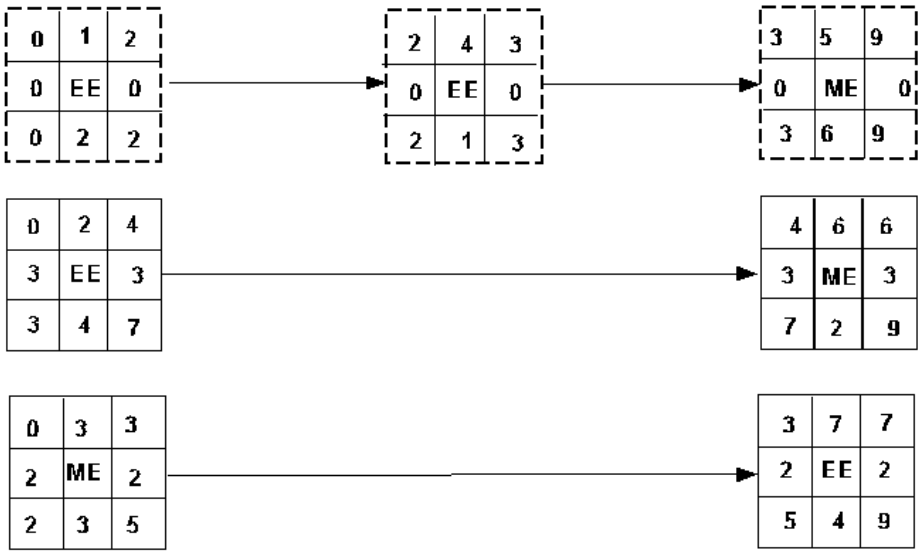
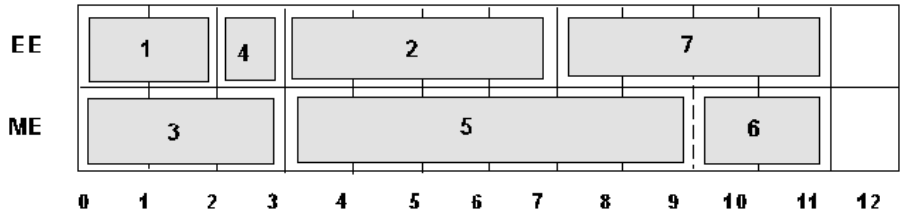
1. **Given the network plan that follows, compute the early, late and slack times. What is the project duration? Using any approach you wish (e.g. trial and error), develop a loading chart for resource, Electrical Engineers (EE), and resource, Mechanical Engineers (ME). Assume only one of each resource exists. Given your resource schedule, compute the early, late and slack times for your project. Which activities are now critical? What is the project duration now? Could something like this happen in real projects?**

Exercise 8-1

Use any approach you wish to develop a plan and resource schedule for the project below.

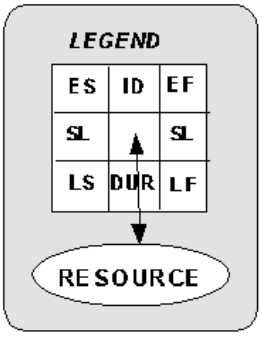


DEVELOP A LOADING SCHEDULE FOR EACH RESOURCE BELOW.



FILL IN THE TIMES BELOW FOR A RESOURCE ACTIVITY SCHEDULE

	ES	LS	EF	LF	SL
1-EE	0	0	2	2	0
2-EE	3	3	7	7	0
3-ME	0	0	3	3	0
4-EE	2	2	3	3	0
5-ME	3	3	9	9	0
6-ME	9	9	11	11	0
7-EE	7	7	11	11	0



Instead of taking nine days the duration has been extended to 11 days and all activities are critical. Resource shortages are common in real projects and this problem demonstrates the impact resource constraints can have on project schedules.