

## 1H. DYNAMIC VERSION OF A NETWORK

For some models the "static" notion of a flow, which has been stressed up until now, is not appropriate. It is necessary instead to think of the material as starting out at various nodes and making definite progress in time through other nodes, undergoing interactions along the way.

For example, suppose one wanted to rush a large quantity of material through a transportation network from a certain "supply point" to a "demand point" in the shortest time possible. The capacities of the many alternate transportation links may be limited, and there may be potential bottlenecks at some intermediate handling points. The flow would have to be organized in the time scale: one would have to specify how much should be entered into each

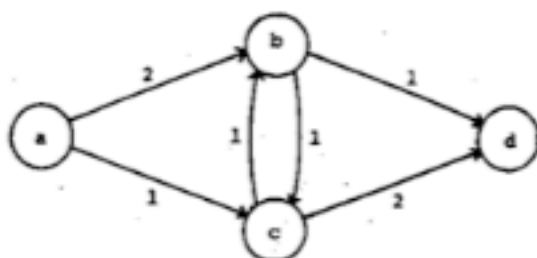
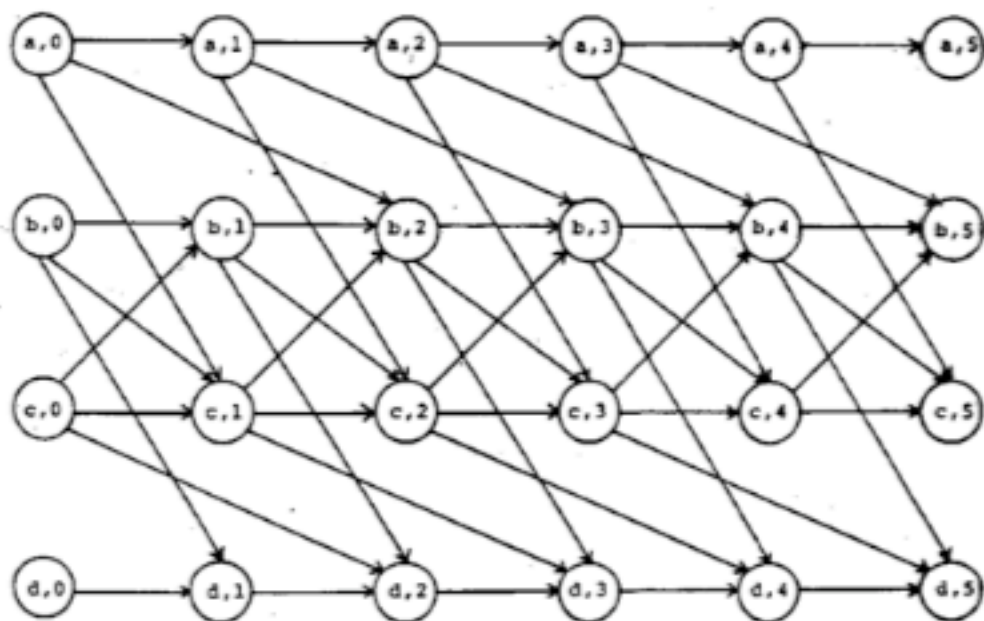
G (with durations  $\tau(j)$ ) $G_T$  for  $T=5$ 

Figure 1.10