Why is deadlock detection much more expensive in a distributed environment than in a centralized environment?Each non-leaf controller maintains a wait-for graph that contains relevant information from the graphs of the controllers in the subtree below it. In particular, let SA, Sp, and Sc be controllers such that Sc is the lowest common ancestor of SA and Sp (Sc must be unique, since we are dealing with a tree).a. Would you use a deadlock-detection scheme or a deadlockprevention scheme?