**9.11** Stanford Rosenberg Computing wants to establish an assembly line for producing a new product, the Personal Digital Assistant (PDA). The tasks, task times, and immediate predecessors for the tasks are as follows:

**TASK** TIME **(sec)**

**IMMEDIATE**

**PREDECESSORS**

IMMEDIATE

TASK TIME (sec) PREDECESSORS

A 12 —

B 15 A

C 8 A

D 5 B, C

E 20 D

Rosenberg’s goal is to produce 180 PDAs per hour.

a) What is the cycle time?

b) What is the theoretical minimum for the number of workstations that Rosenberg can achieve in this assembly line?

c) Can the theoretical minimum actually be reached when workstations are assigned? **PX**