HW3: Project X 16340198 孙肖冉

A secret project by the government (let's call it Project X) will be executed by one person and consists of 6 tasks: A, B, C, D, E, and F. Figure 2.28 specifies the order in which the tasks need to be executed (precedence graph, cf. PERT/CPM). A possible execution trace is for example ABDCEF.

- (a) Model the project in terms of a classical Petri net.
- (b) How does one model so that E is optional?
- (c) How does one model so that D and E should be executed consecutively, that is, B and C are not allowed between D and E?

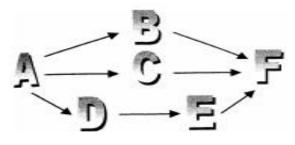
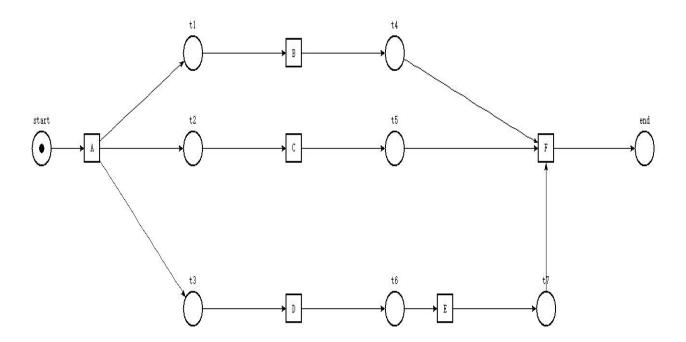
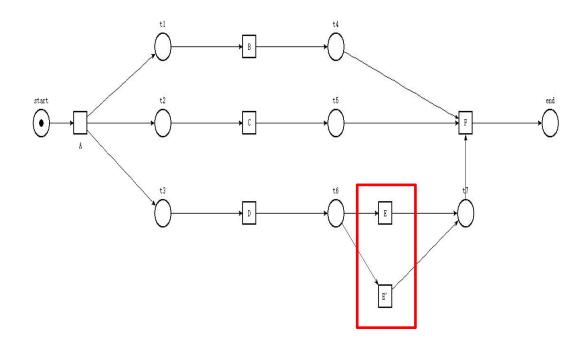


Figure 2.28 Project X

(a) petri net:



(b) 增添了一个 E'作为可供选择项(图中红框部分)



(c)由题意可得在更改后的项目中,DE 需要连续执行,即在本项目中事件发生的顺序有以下几种可能: ① ABCDEF ② ACBDEF ③ ABDECF ④ ACDEBF ⑤ ADEBCF ⑥ ADECBF 在原项目中增添了 t8(图中红框部分),修改之后的 petri net 如下:

