

(b) the firing sequence  $\langle t_2, t_3, \langle t_3, t_4 \rangle^\infty \rangle$  is weakly fair but it is not strongly fair.

**Exercise 3.5.** Determine whether the net shown in Fig.3.2 is B-fair (BF), unconditionally-fair (UF), strongly-fair (SF), and weakly-fair (WF).

**Answer:** The net shown in Fig.3.2 is non-BF, non-UF, non-SF, but WF.

**Exercise 3.6.** Find Petri nets which are: (a) UF but non-BF, and (b) SF but non-BF.

**Answer:** The net shown in Fig.3.7(a) is a UF, non-BF Petri net, and the net shown in Fig.3.7(b) is a SF, non-BF Petri net.

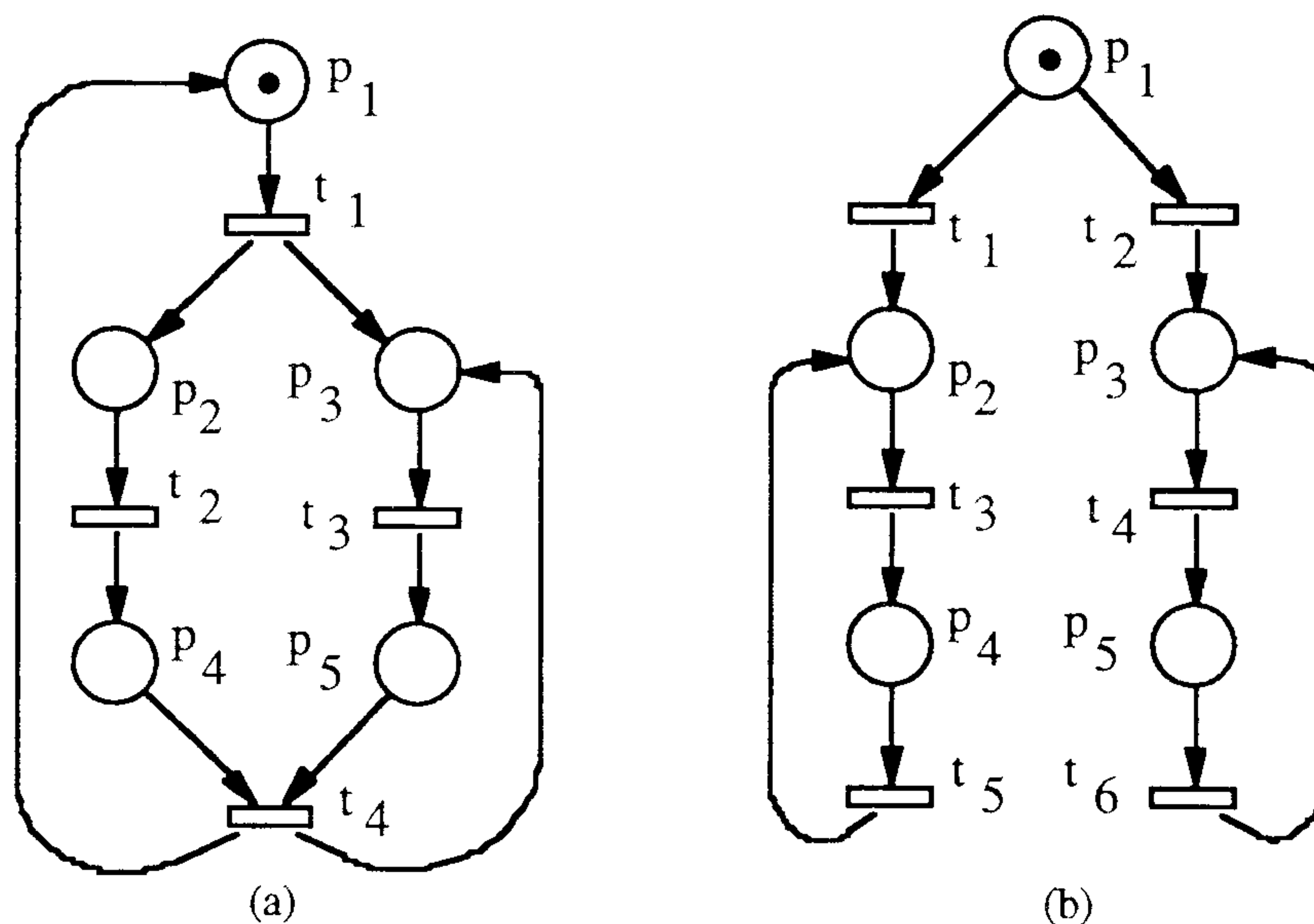


Fig. 3.7 Exercise 3.6 (a) a UF, non-BF net, and (b) a SF, non-BF net.

### 3.9 Problems

**Prob.3.1** Find five Petri nets which are strictly dead, strictly L1-live, strictly L2-live, strictly L3-live, and strictly L4-live, respectively, if any. If not, write "none exist".