

(a) The set  $S$  of all paper in a recycle firm is equal to  $S_1 \cup S_2 \cup S_3 \dots \cup S_7$ , where  $S_1$  is paper of type  $P_{11}$ ,  $S_2$  is paper of type  $P_{12}$ ,  $S_3$  is paper of type  $P_{13}$ ,  $S_4$  is paper of type  $P_{21}$ ,  $S_5$  is paper of type  $P_{22}$ ,  $S_6$  is paper of type  $P_{31}$ ,  $S_7$  is paper of type  $P_{32}$ .

(b) In warehouse 1 stored paper  $S_1 \cup S_2 \cup S_7$ .