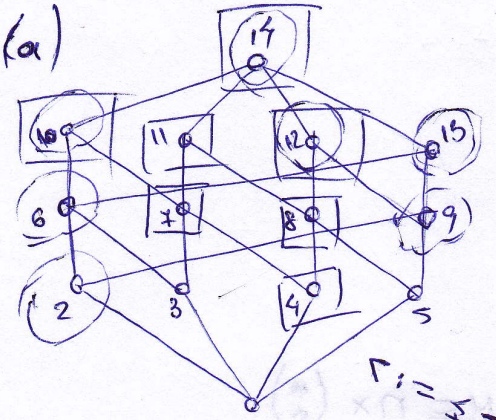
• **Exerc.:** Arăm că următ poseturi nu sunt latrici:

(a)



$\Gamma := \{x \mid x \leq 14\}_{\leq 14}$

$\nexists \sup\{2,4\}$

(a) Majorantii lui 2: {2, 6, 10, 12, 9, 13, 14}

— " — 4: {4, 8, 7, 10, 11, 12, 14}

Majorantii lui {2,4} = {10, 12, 14}

$10 \nleq 12$

$12 \nleq 10$

$10 < 14 \Leftrightarrow (10 \neq 14$ și $10 \leq 14) \Rightarrow 10 = 14$ ⇒ ✗

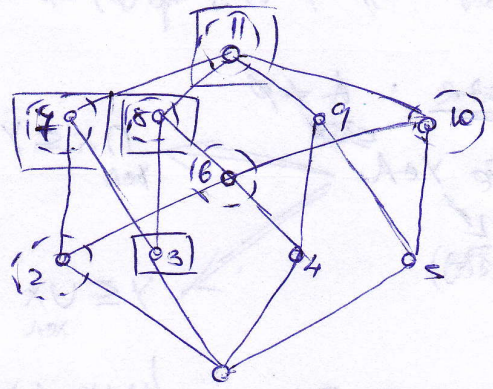
Aici am avea $14 \leq 10$

$\Rightarrow 14 \nleq 10$

$\Rightarrow \nexists \min\{10, 12, 14\} \Leftrightarrow \nexists \sup\{2,4\}$

⇒ posetul nu este latrice

(b)



$\nexists \sup\{2,3\}$

(b) Maj' lui 2: {2, 7, 8, 6, 10, 11}

— " — 3: {3, 8, 7, 11}

Maj lui {2,3}: {7, 8, 11}

$7 \nleq 8$ $\quad 8 \nleq 7$

$7 < 11 \rightarrow 11 \nleq 7$

$\Rightarrow \nexists \min\{7, 8, 11\}$

$\Leftrightarrow \nexists \sup\{2,3\}$

⇒ posetul nu este latrice

• **Exerc.:** $T \neq \emptyset$, $A \subseteq \mathcal{P}(T)$; Arătați că $(\mathcal{P}(T), \subseteq)$:

$$\begin{cases} \exists \inf(A) = \bigcap_{X \in A} X \\ \exists \sup(A) = \bigcup_{X \in A} X \end{cases}$$

Rez:

Caz 1: $A = \emptyset$ Ca să arăt că poset: