

Question 4

b) $B = \{3, 2, 1, 0\}$

$P(B) = 2^n = 16$

level 0 $\rightarrow \{\emptyset\}$

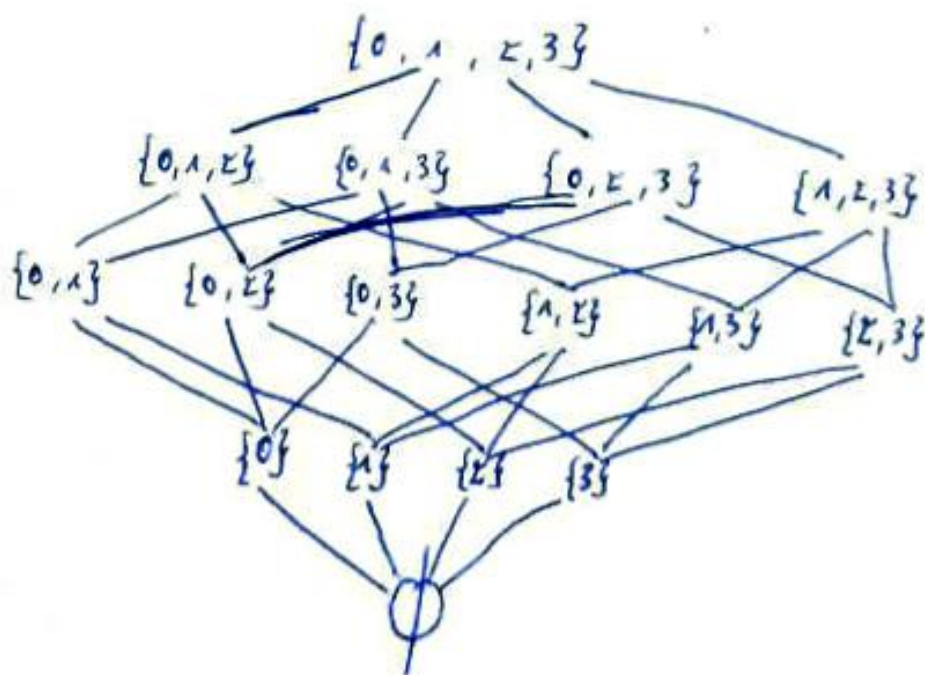
level 1 $\rightarrow \{\{0\}, \{1\}, \{2\}, \{3\}\}$

level 2 $\rightarrow \{\{0, 1\}, \{0, 2\}, \{0, 3\}, \{1, 2\}, \{1, 3\}, \{2, 3\}\}$

level 3 $\rightarrow \{\{0, 1, 2\}, \{0, 1, 3\}, \{0, 2, 3\}, \{1, 2, 3\}\}$

level 4 $\rightarrow \{0, 1, 2, 3\}$

poset $(P(B), \subseteq)$, it is arranged from smallest to bottom and largest to top



Ans poset $(P(B), \subseteq)$, it

Dual poset $(\mathcal{P}(B), \supseteq)$

