

Lecture-6 Main Points

- Partial Orders
 - Generalization of order relation.
 - Hasse diagrams.
 - lub and glb, examples.
- Lattices
 - Every pair of elements has a lub as well as a glb.
 - Distributive lattices, examples and non-examples.
- Boolean Algebra
 - Bounded distributive lattice.
 - Complementation (\neg) is defined.
 - * $x \wedge \neg x = 0$ and $x \vee \neg x = 1$
- BA Examples
 - Boolean algebra 2.
 - Power-set Boolean algebra
 - * $(P(X), \subseteq, \cup, \cap, \emptyset, X, \neg)$