ABOUT ALGEBRAIC INTERPRETATION
OF ZEROTH-ORDER PRODUCTION LOGIC

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The algebraic structures are introduced, which allow to consider production logic inference formalization tasks from the point of view of the lattice theory and theory of relations. A lattice with an additional logical relation set on it is referred to as an LP-structure (Lattice Production Structure). The LP-structure, which logic is extended to a full set of logical connectives of sentential language - implication, conjunction, disjunction, and negation - is investigated. The following basic questions are investigated: existence of LP closure, its structure and equivalence conversions. The theorem of existence of a logical reduction of arbitrary relation is proved and the way of its construction is specified.