Topics for the Final Exam

1. Intuitive Set Theory
2. Boolean Expressions and Truth Tables
3. Translation of Laws of Set Theory into Laws of Propositional Logic
4. Arithmetic Expressions, Textual Substitution and Inference Rules
5. Axiomatic Approach to Propositional Calculus: Axioms and Inference Rules
6. Disjunctive Normal Forms and their Minimal Form
7. Combinational Digital Circuits
8. Logical Conditions in C++
9. Arithmetic Expressions in Quantification Formalism
10. Arithmetic Expressions in C++
11. Axiomatic Approach to Quantification
12. Universal and Existential Quantifiers
13. Axiomatic Approach to Predicate Calculus
14. Programming Tasks - Quantification Formalism and C++ Code
15. Program Specifications
16. Inductive Proofs and Inductive Definitions
17. Loop Invariants
18. Proofs of Correctness of Algorithms Based on Post Order Tree Traversal
19. Equivalence Relations
20. Relational Databases