Discrete mathematics - Chapter Computation Modeling practical work

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ATTENTIONS

- Practical work duration: *14:00 - 16:30*.

- Remember to send your work to my email address *giang-anh.tuan@usth.edu.vn* with this email title format *"[ICT Bx] - Chapter Computation Modeling practical work - your name"* before *23:59* (x is your enrollment academic year, i.e ICT B6, incorrect format or late submission will not be considered).

Computer Projects: write programs with these inputs and outputs.

1 PROBLEM 1

Given the state table of a deterministic finite-state automaton and a string, decide whether this string is recognized by the automaton.

2 PROBLEM 2

Given the state table of a non-deterministic finite-state automaton and a string, decide whether this string is recognized by the automaton.

3 PROBLEM 3

Given a finite-state automaton, construct a regular grammar that generates the language recognized by this automaton.

4 PROBLEM 4

Given a regular grammar, construct a finite-state automaton that recognizes the language generated by this grammar.

5 PROBLEM 5

Given a Turing machine, find the output string produced by a given input string.